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Submission of an abstract implies that the contributor accepts the following conditions:

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2. He must be prompt in attendance at the meeting for which he is scheduled and must keep within the time limits indicated in the printed program.

3. No equipment will be provided for a presentation other than what the contributor has listed in his abstract unless he notifies the Program Chairman two weeks prior to the convention of desired additions or changes in equipment needed.

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A Conceptual Model For The Processes Involved In Recovery From Aphasia

Joseph M. Wepman

THE HISTORY of aphasia therapy for any large number of patients does not extend beyond the early nineteen-forties. With the influx of war-injured adults, many of them flown almost directly from the battlefields, it was necessary to develop treatment without reference to theory. Concomitantly, the increased tensions of life for civilian populations during the war years produced a growing number of cerebro-vascular accidents due to hypertension. The therapy programs developed and utilized in army hospitals and in Veterans Administration installations became available for many patients in private environments. The consequences of this increasing amount of aphasia therapy has been twofold: (1) There has been a tremendous increase in the number of therapists and (2) therapy of all kinds has been applied with little or no knowledge of its effectiveness or its expectations. Aphasia therapy, therefore, has been opportunistic rather than planned and the results obtained have been neither uniformly good nor uniformly bad. Since expectancy or prognosis for recovery has not been evaluated, the known product of all of the activity in therapy has been in terms of the resolution of defects in individual patients.

The backlog of experience on individual patients now seems great enough that it should be possible to fix several useful points in the therapeutic process. With these in mind we should be able to view therapy more rigorously and begin to understand the answers to many of the questions that have been of concern for the past decade.

Three sources are available for the determination of an over-all concept that might account for recovery from aphasia. First, the patient—his personality, his intellectual propensities, his behavior in therapy and in life—needs to be scrutinized. Second, the therapist—his role in the treatment process, as well as his training and background needs to be studied. Third, the therapeutics that have been utilized by different therapists must be considered. By extracting what is known from each of these primary areas some fundamental considerations should be available to permit the construction of a working model that will permit a more scientific approach to the problem.

As yet we know very little that is factual concerning either the personality structure or the intellectual potential of the aphasic patient. Various researchers hold widely differing

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opinion in both areas. Some hold that brain damage produces a change in personality which tends to make all such patients very much alike (*3*). Others hold that only the overt manifestations of behavior change while the basic personality remains the same (*12*). Neither view has been substantiated, but both are now being studied. A similar condition exists in regard to the problem of intellectual ability following cortical insult. Research has been reported on brain-injured patients that indicates a particular kind of deterioration (*11*), or an inability to abstract (*3*). Such a list of separate intellectualizing factors can be extended almost indefinitely, yet no research has shown to this time any universal or holistic picture of the intellectual function after brain injury that is ultimately useful in planning therapy.

Still another area which should be ultimately productive of valuable data for the aphasia therapist is the manner in which the cortex functions. The recent Hixon Symposium (*8*) on cerebral mechanisms of the cortex reported on a vast amount of recent research in this area. Sperry, however, in his discussion of brain function (*10*) epitomized the level of direct value to be gained when he pointed out that 'despite steady advancement in our knowledge of the brain, the intrinsic nature of mind and its relation to cerebral excitation remains as much an enigma today as it was a hundred years ago.' Interest in neuropsychology at this level continues, however, and while direct factual material useful to the present planning of treatment is lacking, many theoretical concepts are forthcoming. As will be seen later these constructs may give extremely useful leads in the present context.

Probably the most important area of study for the present purpose is the clinical observations made during therapy itself. It is notable, for example, that patients showing all varieties of language disturbances seem to get some resolution of their problems, seemingly regardless of the particular approach used with them. Still other patients with a similar variety of symptoms do not seem to improve or do so only to a very limited degree. To illustrate this rather vital point it has been shown that the expressive language disorders are more amenable to therapy than are the receptive disorders (*12, 1*). Yet, at the same time, some patients with comparatively mild expressive problems do not respond to therapy while other patients who have exhibited severe receptive disorders have responded extremely well. In fact it has been observed that there is little if any relation between the severity of brain damage and the degree of recovery.

The usual explanation for these noted discrepancies has been in terms of either the neurological deficit or the personality of the patient. Since both of these can only be represented as unknowns in our present state of knowledge they become convenient scapegoats for our failures. Neither seems adequate to the present writer. If the neurological deficit is the reason for the failure then there should logically be some definite relationship between either extent of damage and severity of the disorder or location and extent of damage in the cortex and the presenting symptom. Neither of these conditions have been seen to be valid in our observation of patients, excepting in a very gross way.

With regard to the unknown vector of the personality of the patient, it would seem that we would need to

know much more about personality structure itself, before we could reasonably accept it as the major determinant of recovery. Too many psychologists hold such widely diverging opinions for any such generic term as 'personality' to be meaningful in this regard. Patients have been seen whose general personality characteristics seem to be approximately the same and yet who differ almost completely in their recovery process. Not only do they differ markedly between themselves, but they differ noticeably from time to time in their individual patterns of recovery.

Stimulation

It appears to this observer that the best defined parameter along which patients differ is in their ability to be stimulated. Whether this difference in 'stimulatability' is a physiological factor, a psychological factor or a combination of both cannot be determined by observation. Perhaps this is the function that Head (*5*) called 'vigilance' or that Halstead (*4*) has called the 'p factor' or perhaps it is related to the psychological characteristic called 'drive' or 'need.' Whatever it may be, it is observable in almost every patient. Some patients can be stimulated and others cannot. Some patients can be stimulated in certain areas of behavior, others in different areas, some in all areas, while still others in no area. Here, too, there seems to be little if any relation between the variables of severity of symptom, type of language disorder, length of time since trauma, beginning of therapy, age of the patient, etc. To this writer this appears to be the first needed signpost. To what degree can the patient be stimulated? In what area of language can he be stimulated? What kind of response is generated by different kinds of stimulation? These may be the most useful questions to be asked as a treatment program is planned.

Another observation bears upon the question of stimulation. It has been noted by the writer in visiting centers in different parts of the country that aphasia therapy is rarely the same thing in any two places. Some therapists follow a fairly rigid, educative approach. Drill, repetition of exercises, work books, daily lesson plans, etc., make up a bulk of the work being done. Others lean more heavily upon a more psychological approach, permitting the patient to select his area of language and guiding him through the difficult spots as they occur. There seems to be all varieties depending for the most part upon the training and background of the therapists rather than upon the needs of the patient. At different times the writer has used almost every kind of approach in his own clinical practice. What is important is that patients seem to get better or do not get better in approximately the same proportions, regardless of the approach used with them. This may mean that patients who fail to improve in one treatment center might be more likely to respond under some other therapeutic regime. Or, it may mean, and this is more likely true, that some of these patients could not be properly stimulated or were not so stimulated. For with the great variations of approach being used it seems most probably true that what is being done with the aphasic patient in each treatment center is a stimulation process rather than an educative one. Some therapists, in other words, are stimulating their patients by one technique, while others are using different techniques, but in the final analysis all therapists, regardless of their particu-

lar approach, are doing what might be called 'stimulation therapy.' If this is true the content of our therapy is of less importance than the manner in which it is conducted.

This factor has been of concern for some time; its implications are extremely important in the entire recovery process. The content of therapy has received possibly as much attention as any other single factor in the training of therapists. Many therapists are considered to be trained when they have in their possession a list of techniques and a knowledge of the material that has been found useful with patients. In fact, knowledge of this sort has at times become so primary that the needs of the patient, his personality and even his desires have been overlooked in order to instill in therapists particular approaches and specific content material. If it seems maximally useful to consider the patient and his ability to be stimulated, then therapists must be concerned with the patient and their ability to stimulate them rather than with techniques or content. A new orientation to therapy will be necessary and a different training for therapists will become vital.

One final factor bears on the point of stimulation as one of the important considerations necessary in planning aphasia therapy. A common observation during the recovery process is the tendency for patients to develop language forms quite unrelated to the therapy. Vocabularies are used which can only be considered as old recall patterns produced by cerebral function much in the manner in which they were produced prior to the trauma. The implication from this is quite clear. Therapy may have succeeded in stimulating the patient to efforts on particular language forms which when completed have permitted the patient to function in language generally rather than specifically. For example, one patient, a surgeon, exhibited a marked verbal apraxia and an extremely slow recovery of voluntary language. While still working on simple naming of common objects he one day demonstrated that words quite far removed from the vocabulary used in therapy, such as the names of technical surgical instruments, were used with facility.

Examples like this can be duplicated many times. The implication seems to be that the content of therapy served only to stimulate the patient to produce the integrations necessary for language, but did not convey specific new learning or new vocabulary to the patient.

Facilitation

The second parameter of our conceptual chain relates to the state of the organism. Sometimes the patient seems ready to produce the integrations necessary for use in language, at other times he seems quite unready. He acts as though at times his cortex was able to symbolize, while at other times the integrations necessary could not be made. Whether, as Hebb (*6*) postulates it, we conceive of cortical function as a network of cells in which the individual is able to produce a connected pathway leading to a motor act, a final common pathway of response, or if we utilize Kohler's (*5*) concept of positive and negative electrical fields, or McCullough's (*5*) reverbating circuits, or Sperry's (*10*) concept of the 'motor-end product,' to note just a few of the existing theoretical frames of reference, there must at all times be a readiness of the individual organism. Aphasia therapy

as we conceive it has as its role that of facilitating the organism as it prepares to function. It so stimulates the patient that when he is ready to produce language, he becomes able to do so. Facilitation, then, becomes a concept related to the physiological state, the ability to increase the flow of energy into the system which permits it to form new integrations for language, utilizing the nervous tissue present which seems incapable of spontaneous function.

Another way of stating this, physiologically, might be that aphasia therapy reduces the impedance against function by its stimulation effect. The impedance here might be thought of in terms of the destruction through trauma of the pathways which formed the previous integrations necessary for language response, which leave the patient with sufficient cortical tissue for response but insufficient intact pathways for the particular act he wishes to perform. Unless these new pathways be formed the impedance will be too great for successful integration.

In brain injured patients there are varying degrees of cortical insult. One patient may have sufficient cortex remaining for new pathways to be formed easily with almost any kind of stimulation. Other patients may have more serious disruptions and destructions of cortex which obviate all but a few pathways. Still others may have their most serious loss in particular areas which serve as the nucleus for auditory reception or for verbal expression and only in these areas will the patient have his greatest disability. Facilitation of cortical function through therapy then is seen as the change that must take place in the organism before the integrations for language can be formed. Perhaps what was said earlier about stimulatability can now be translated into 'facilitatability' of the individual. The difference lies in the stage of the process. Stimulation is what is done externally to the patient which produces some heightening of his efforts. Stimulation, however, cannot effect a change in the patient unless he is in a state or set or condition which permits the integration to be made. When such a state does exist the stimulation has its effect and the patient's efforts are facilitated.

Some clinical evidence for such a process being operative does appear to be present. Patients regardless of their particular facade of aphasia symptoms respond accurately at some times and at others seem quite unable to respond. One of the truisms that has been developed in aphasia therapy is the timing of therapy to take advantage of this apparent shift of ability within the patient. Therapists are told that when a patient seems to be able to respond without frustration or without more than minimal frustration, therapy should be stressed. Conversely, at those times when patients seem to be easily frustrated and even may respond with apparent catastrophic reactions, therapy should be discontinued. Evidently what is happening to these patients is that at times their systems are in a state of readiness to respond; it is possible at these times to facilitate their behavior, to assist them. At other times when their frustration tolerance is low they are incapable of being stimulated; it is impossible to facilitate their behavior. In our present state of knowledge we are quite incapable of describing what the difference may be in cortical function between these two states. The observation seems none the less valid, however.

It remains, then for us to do more than apply a given set of instructions or to attempt to view aphasia therapy

as the application of a given series of techniques which, if properly applied, will cause definitive changes in the patient. Contrariwise, its inference would be that being clinically aware of the state of the organism by the behavior of the patient at any given moment is of more concern than the content of therapy. Clinical adroitness or clinical maturity would be more important then than any amount of technique, even if we conceded that there was a given technique or approach that was more valuable than any other.

Facilitation is a bi-modal concept. It is first the consequence of stimulation, that factor which assists the nonintegrated cortical structure to function in a more integrated manner. At the same time it is the physiological lowering of the impedance against organized cortical action. One is reminded of Bertrand Russell's statement on electricity (*9*):

> Some readers may expect me at this stage to tell them what electricity really is! The fact is that it is not a thing, like St. Paul's Cathedral; it is a way in which things behave. When we have told how things behave when they are electrified, and under what circumstances they are electrified, we have told all there is to tell.

This is about the only explanation that can be given for the concept of 'facilitation' as we use it here. It is not a thing, but people do behave in certain ways when they are stimulated at some times and in other ways when they are stimulated at other times. Stimulation is felt to be valuable and useful and meaningful when the organism is in a state in which the stimulation can have a productive end. This is a state of facilitation. The individual is at that time facilitatable as the product of stimulation.

Some patients seem to be constantly in this state, that is, their integrative level is approximately ready to function, they need only the added cues and clues of the therapist to set their own cortical processes into constructive action. They are easily stimulated and there is an immediate facilitation of their own efforts. Other patients have varying degrees of cortical readiness, that is, the disruption of the cortical function was more or less severe or widespread or more specialized nervous tissue was effected by their particular insult. With these patients it requires a greater degree of stimulation, even when the readiness to function is apparent. It may take more astute clinical adroitness, more thoroughly conceived frustration material.

While it would seem that any material would be useful and consequently the material itself need be given little thought in our therapeutic plans, this does not seem to be true. What must be carefully considered is the factor of frustration. Not only the level of frustration tolerance in the patient, but the actual act of frustration itself. It has been found to be maximally useful in this regard to analyze very carefully the particular language deficit presented by the patient. Thus on a very gross level if we conceive of the patient as an organism with a tri-modal in-put system consisting of auditory, visual and tactual pathways by which he can receive stimuli from his environment and likewise a tri-modal out-put system by which he can express himself, consisting of oral, graphic and gestural pathways of expression we can rather readily measure his deficit. Since our usual goals are to rehabilitate him as a useful (to himself at least) individual in society we should work most directly toward establishing a means of communication for him by selecting the particular path which is best re-

tained after the trauma, whether it be an aural in-put and a graphic output or a tactual in-put and a gestural expressive path, and developing that pathway until he is able to communicate his attitudes and thoughts with some ease and facility. To do this we must be able to construct a training program which frustrates him just beyond his presenting ability, that he may be led or guided toward his goal of communication. This does not mean that we should avoid the other pathways or deal exclusively with the best retained, but that we should give an added emphasis to that direction of his behavior. This should be the pathway by which it is simplest and easiest to facilitate his own efforts for it is along this path that the least disruption of cortical tissue must have taken place.

Motivation

It should be recognized at this point that the dual concept of 'stimulation-facilitation' does not completely explain the recovery process. That is, a mere stimulation of a neural system which is physiologically capable of functioning is not enough, for it is evident clinically that a psychological state of readiness must also exist before maximal learning of the formation of new, operative neural integrations are possible. The most commonly used term which expresses this concept is 'motivation.'

Motivation, as the third link in our conceptual chain, indicates the level of goal-directed behavior possessed by the patient. Motives are here defined as goads to action; goals to be achieved, consciously recognized or not as the case may be. As with the concept of facilitation, motives are not observable entities but are inferences drawn from the behavior of the individual by which we can account for behavior. Hull (7) hypothesized that:

> . . . there is a goal gradient which can be quantitatively defined . . . rewards and punishments, pleasures and pains, act in some way to reinforce some acts and to inhibit others; goals offer rewards and failures to reach them punishment.

The aphasic patient, like the rest of us, functions best when he reaches a psychological state of high motivation.

A middle-aged patient exhibiting a marked receptive-expressive aphasia, for example, showed a definite plateau in recovery. New gains in language had not been achieved for some time and it seemed that no particular intensity of stimulation, of the type previously used quite successfully, seemed to move him. By a review of the patient's pre-traumatic behavior, his vocation and his avocation, it was seen that the usual background data had been used directly in the compilation of therapeutic work material. One area that had not been used, however, or had at best been given only a minor emphasis early in therapy, was the patient's love of outdoor sports as a participator. Attempts to use this area previously had met with considerable resistance. The patient's self-concept, it was felt, was not sufficiently stable that he could talk or work in the area of his previous love of active sports. At this later date, however, there had been a considerable reduction in his hemiplegia. He was now able to walk quite successfully without a cane and had become especially facile in the use of his left hand. Reintroducing the area of sports (fishing and hunting especially), first as a vocabulary area and later as direct activities to the limit of his ability, became so motivating that the plateau was left behind and language

therapy could be continued upon measurable and meaningful levels.

This case history illustrates a number of important things about aphasia therapy, but most importantly it stresses the vital need for understanding the patient's background, his interests and his capability of accepting these previously highly motivated areas of behavior in his post-traumatic state. Language areas which might be very stimulating at one time may be almost detrimental at another. The therapist, then, must be constantly aware of the patient's readiness to act in a particular area. This readiness may be both a function of the physiological state as well as the psychological state of the patient.

It has been argued that all patients are motivated to speak, to read, to write again. This is undoubtedly true. Some degree of motivation to resolve all parts of the language problem, and to be able to use communication meaningfully, is present at all times. In some patients, however, it is to be noted that the desire for other behavior may be more highly motivated than that of language. It is, for example, a common experience that patients express a real need for increased function in their paralyzed arms and legs before they express a need for improved speech or language. Unless some effort is made toward reducing their realized anxiety in this direction, language therapy may fail because of a lack of sufficient motivation, or put another way, motivation for other functions may be greater than for language recovery. With these same patients, however, when physiotherapy is prescribed, when exercise, heat, massage, braces, etc. that make up the physical rehabilitation becomes a part of the program, the patients seem more immediately available, psychologically, for language therapy.

It is for such reasons as these that the present writer has become such an advocate of the team approach as the most useful method for total therapy. Patients that see themselves as permanently physically debilitated and visualize themselves as never again being able to function as whole people tend to develop withdrawal characteristics secondary to their brain damage. These patients seem almost unable to be motivated for language therapy, per se. Thus, the patient may be in a position where his cortex is again capable of integrated behavior and we may be ready and willing to provide the proper stimulation for language recovery and yet lack of the proper psychological set or motivation may block every effort.

The concept of motivation can be considered in still a different light. As aphasia therapists we may believe that the most desirable immediate goal in therapy falls along the pathway of auditory reception and verbal expression. This may be our best considered opinion from our knowledge of the patient and his ability to perform at the time. With this in mind we may set out a program designed to assist him to recover communication facility along this pathway. The patient, however, may have other ideas, which because of his aphasia he cannot verbalize, about his communication needs. He may have been a person who always utilized as his language modality of choice a visual reception and a graphic expression. He may, internally, be highly motivated to attain his previous proficiency in these areas and along this path. Regardless of our concept that the best retained pathway is the direction which should be given to the therapy, maximal motivation may exist in this less well retained pathway. If so, it is along that road that we must travel. At the very

least, we must be prepared to accept as our goal what the patient feels to be his greatest need. For unless we can strike the highest level of motivation and satisfy the need of the patient our attempts to assist may be quite meaningless for this particular patient.

The patient's motivational level and the effect it has upon the recovery process is probably easiest seen in the in-patient hospital environment. In one such aphasia center patients were being seen with a reasonable amount of success being obtained in some patients, but what appeared to be an inordinate amount of withdrawal and negativism observed in a great number of other patients. At that time each patient was being seen individually for language therapy while he was being treated for his physical debilities by his ward neurologist and under the latter's guidance was receiving physiotherapy, occupational and corrective therapy as they seemed indicated. It was evident that something was lacking in the overall approach. Many patients did not seem to improve under the stipulated regime. Social group therapy was then added to the program. As the patients came to know one another in a free and relaxed environment, as their self-concepts changed through the interpersonal relationships developed, there seemed to be an almost dramatic change in their language progress. They became less withdrawn and negativistic toward participation in their individual therapy and the over-all tone of the program for the entire group seemed heightened and improved. This increased activity and progress seems understandable to the writer only on the basis of increased motivation. For some of the patients the motivational improvement seemed to come from the acceptance of the other patients, for others it seemed to originate in the opportunity for competition with other patients after acceptance was assured. But without question the entire group, almost to a man, showed increased motivation and a lessening of the psychological blocks toward recovery.

French (*2*) in his recent book on the integration of behavior points out that 'it is impossible to understand most behavior unless we discover its motives.' The motivation of the aphasic patient like the motives that move all others must be understood before we can hope to achieve reasonable success in therapy. The needs of the patient should be one of the first interests as we plan therapy for any patient. In part this can be understood only by studying his pre-traumatic history. In part these may be hidden because of the patient's inability to communicate. But by careful observation of the patient's behavior as we work with him we can see the success we are obtaining at meeting his needs as we attempt to assist him in his resolution of his language deficit. Thus the concept of the patient's motivation must be always with us or we will blindly follow our own needs and overlook those of the patient.

Conclusion

Three concepts, stimulation, facilitation and motivation, form the constructs which are believed important in the recovery process. They are inextricably interrelated. One cannot produce therapeutic changes without the other. Aphasic patients left to their own devices tend to plateau in the resolution of their language deficits. With this plateauing comes the development of a whole series of so-

called secondary reactions to their condition. Accepting their disability usually means a withdrawal from the social environment. Anxiety and depression become increasing problems. A sense of worthlessness, feelings of futility and an over-all attitude of insecurity becomes pervasive. In sheltered environments they tend to become overly dependent, invalidized and infantilized. Therapy that is supportive as well as instructive is the only way in which these patients can again regain a wholesome self-concept which permits them to function in society as whole people. They must be stimulated to action. Their physiological readiness must be utilized. Their motivational levels must be understood and constructively used.

Stimulation, as used here, means any and every kind of outside, external persuasion, used by those in the patient's environment to provide the individual with stimuli to which he may react. Therapy is organized, goal-directed stimulation, based upon a recognition of the patient's needs, his drives, his motivation. As stimulation is provided at a time when the organism is capable of response it tends to facilitate neural integrations. If the direction of the stimulation at the proper time is in keeping with the patient's psychological state of readiness, if the stimulation is within the modality of language which meets the patient's needs, if the stimulation provides the end reward by realizable and recognizable goals of achievement, then success in therapy is more likely to follow.

Aphasia therapy reduced to its primary function becomes in this conceptual structure a process by which the therapist provides stimulative material in the area of a patient's greatest need at a time when his nervous system is capable of utilizing it for the facilitation of cortical integrations leading to language performance. Facilitation is seen as the physiological strength of the drive to motivate action. It is the increase in neural activity that comes about because the patient has been stimulated at the time when he can make use of the stimulation. Motivation in its simplest terms is seen as the amount of goal-directed behavior the patient possesses. When all three concepts are operating at their maximal level, aphasia therapy has its greatest and perhaps its only real chance for success.

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Auditory Impairment In Aphasia: Significance And Retraining Techniques

Hildred Schuell

IN A RECENT study (7) based on test and clinical data obtained from an unselected group of 130 aphasic patients examined at the Minneapolis Veterans Administration Hospital, it was found that all patients made errors on tests for understanding spoken language. Of 99 patients who recovered functional speech, only four made errors identifying common objects named by the examiner, but all made errors following directions, recognizing errors (such as, *You eat with a knife, fork and comb; is that right?*), or grasping the meaning of a simple paragraph read aloud. It was postulated that the basic aphasic difficulty of these patients was impairment of reauditorization, defined as ability to retain and evoke auditory patterns of language, and that this condition is reversible to a considerable degree. Aphasic symptoms believed to be secondary to it were described.

It is the purpose of this article to analyze these symptoms in more detail, and to examine their implications for therapy. The present study is based upon careful and detailed observation of the language behavior of 15 aphasic patients throughout their clinical course.

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Findings

Initial findings for the 15 patients studied may be summarized as follows:

1. All patients recognized familiar objects named by the examiner, but all made errors following simple directions, recognizing errors, or grasping the meaning of simple paragraphs.

2. All patients made inconsistent errors in articulation. Severity of involvement varied from patient to patient. Some had no intelligible speech; some had a few intelligible words and phrases; one made only occasional errors. Patients were also variable in ability to imitate gross non-speech movements of the tongue.

3. All patients had limited vocabulary, difficulty in word finding, and difficulty in formulating ideas.

4. All patients were impaired in ability to repeat words and phrases. Some were unable to repeat a single sound or syllable; others could repeat short sentences but not longer ones.

5. All patients were impaired in ability to rhyme. Initially, many patients could not be tested on this item. When they had more language they tended to give responses like *car, automobile*, or *lake, swim*, associating

through meaning rather than sound. This kind of response was found by Biondo (*3*) among deaf and hard of hearing individuals.

6. All patients were impaired in both oral and silent reading.

7. All patients were impaired in writing.

Discussion

Understanding spoken language. It has been stated that these patients did not make errors recognizing familiar words. One patient scored at the 99th percentile for normal adults on the Ammons Wide-Range Vocabulary Scale (*1*), but made errors following directions such as *Ring the bell,* and *Put the spoon in the cup.*

For all patients number of errors increased as language units increased in length. For example, some patients were able to follow short directions, but failed if two of these directions were combined. Some patients could grasp the meaning of a short paragraph, but not one a few sentences longer. All patients made steady gains in responding appropriately to longer and longer materials as therapy progressed. This occurred in the clinic where length of materials was gradually increased, and was reported outside as well. For example, patients who had not been able to follow radio programs began to enjoy them again, and to be able to report news items they heard.

Other factors besides length of stimulus affected comprehension, of course. Patients responded better to people they knew than to strangers; they responded better in familiar situations than in strange ones; they responded better talking to one person than in a group; they responded better to language about familiar everyday happenings and matters of immediate concern than to language about something in which they were not interested. Probably all this could be summarized by saying that response varied in inverse relation to anxiety. When these factors were held as constant as possible, percentage of errors rose steadily when length of materials was increased. Patients improved in ability to handle more difficult situations as well as in ability to handle longer materials.

It appeared that the chief difficulty these patients experienced in understanding was impairment of ability to say things back to themselves, which is one of the ways impairment of reauditorization would be expected to operate. At first patients tended to be able to deal only with short and immediate sound cues. Often they could not respond appropriately because they could not remember what had been said. Later they were able to deal effectively with short units, but still missed the significance of longer ones because they could not recall what had gone before, and each unit grasped was unrelated to anything else.

Articulation. If reauditorization were impaired mispronunciations would be predicted, because patients would recall sound sequences imperfectly. The errors of these patients were unlike errors made by dysarthric patients. Responses varied from jargon, through approximations of the desired word, to normal articulation, as the following examples show:

1. *Naming objects or pictures*
   cup: mer
   key: moot
   spoon: doom
   table: tabie
   mouth: moth, house, mouse
2. *Naming months*
   Mapril, June, Jyely, Septensember, Octobie, Novembie

3. *Defining words*
   Island: little place in the allory
4. *Describing a picture*
   A boy and a pack [kite]. A duck, a man, a girl. A lossbeck [mailbox]. A strike [kite] and a tack [tail] on the strike [kite].

These patients used all speech sounds, and at one time or another used all of them correctly. Although some had no intelligible speech at first, speech soon emerged which sounded entirely normal. When patients knew what they wanted to say speech was effortless and clear. When they couldn't get the word or couldn't quite get it distortions and substitutions occurred, and tensions and struggle behavior could be observed. Patients were often observed to rehearse a word in a whisper before attempting to say it aloud. Sometimes they even said, 'I can't *hear* it,' or 'I had it, but it's gone.'

Expressing ideas. Speech which emerged was limited at first, both in content and vocabulary. It tended to consist largely of a stock of general phrases, and the same phrases were used over and over by the same patient. Vocabulary gradually enlarged, however, and as more words became available to the patient he began to be able to express more specific ideas, and ideas of increasing complexity. Patients who were unable to name objects usually recognized the word when it was spoken, and could select the correct word from a group of words. It is postulated that impairment of ability to evoke a desired sound sequence may be one of the major factors in impairment of word finding, although more than this may be involved.

One patient had learned sign language to communicate with deaf parents. When attempting to name pictures, if this patient could say the word, he could also sign it and write it. If he could not say it he could not sign it or write it. Sometimes a patient may be able to write a word he cannot say, but more often he thinks he will be able to write it, attempts it, and fails. Sometimes he produces nothing, sometimes the beginning or an approximation of a word, and sometimes nothing intelligible.

Patients often produced words that were associated with the desired word by meaning rather than by sound, as *boy* for *girl*, or *cat* for *dog*. During the course of therapy it appeared that patients first became able to recognize their errors, then to correct them, and finally the frequency of errors diminished.

Impairment of ability to repeat. All patients showed impairment of ability to repeat words, phrases, and sentences. On the Binet test (*8*), repetition of sentences of 15 and 16 words appears at the 11-year level. None of these patients was able to repeat a sentence correctly which contained 10 words.

Degree of impairment varied from inability to repeat single syllables to ability to repeat units of six or seven words. All patients learned to repeat sentences. All patients made steady and consistent gains in ability to repeat longer and longer units correctly. If materials were equated for length of individual words and familiarity of concept and expression, performance curves were highly consistent.

The most severely impaired patients, although they showed the same form of curve with phrases and sentences, continued to have some difficulty with isolated words. A familiar phrase was often easier than a word out of context. It appears that a familiar association makes it possible to reauditorize a sound sequence missed by ear alone. Spelling tests make use of this principle by presenting the word first in isolation, then in a sentence.

Repetition of words resulted in inconsistent substitutions, distortions, and omissions of sounds, with occasional reversals of syllables. In general, there were fewer errors on repetition than on naming, where an auditory pattern is not supplied. Repetition of sentences resulted in defective words, omissions of words, and occasional reversals of order. Patients tended to omit connecting words or the beginning or end of the sentence. The following are examples:

Sharpen the pencil: the pinquist
The old apple tree: the old aswee
The sun is shining: the tun —
We cut the flax: cuts the max.
We live in the house on the corner: House — course — corner
A clock tells you what time is it: what time it is

Probably the strongest arguments for considering these errors secondary to impairment of ability to reauditorize rather than to motor disturbance are: (1) inconsistency of errors; (2) comparatively rapid emergence of some normal speech; and (3) reduction and elimination of errors as patients learn to listen better, when no work at all has been directed towards improving motor function.

Impairment in reading. These patients could match common words to pictures. On the Gate's Primary Tests (5), word recognition varied between second and seventh grade levels. All patients made errors comprehending sentences and simple paragraphs. No patient in this group was able to read simple sentences or paragraphs aloud initially. The same kinds of errors appeared on oral reading as appeared on naming objects and on repetition. Errors in comprehension appeared to stem from misreading individual words and from inability to remember what had been read before. Patients frequently added words closely associated with some word in the sentence which distorted meaning. For example, one patient read *the end of the boat* as *the -end-of-the-rope–boat*, and *many happy vacations*, as *many-happy-returns–vacations*, and lost the meaning of the sentence each time.

As reading ability progressed most patients had more trouble with small words, such as *in*, *has*, *was* and *it*, than they did with longer words.

Observation and analysis of this difficulty indicated that several factors contribute to it. These words have fewer distinguishing visual characteristics. *It*, *is*, *in*, look more alike, for example, than *chair* and *bed;* actually longer words which look alike are confused too, such as *mouth* and *month*, *bed* and *bead*, and *chair* and *chain*.

In the second place aphasic patients misread letters as well as words. Asked to spell the word he is looking at the patient often cannot spell it or misspells it. If the clinician spells it for him he can often say it correctly. It is possible that misreading individual letters interferes with recognition of short words more than longer ones.

Probably the most significant factor, however, is that in connected speech the auditory cues of connecting words are weaker than those of nouns and main verbs. They are unstressed in the sentence, which means that less force and less time is given to them. Vowel sounds are elided, or a neutral vowel is substituted, so that such words are not usually heard distinctly. In the experience of the writer, reading aloud with the patient so that he hears language units, such as *in the house*, *to the store*, *there is the mailman*, produced results faster than phonetic or vocabulary drill.

It is not suggested that all impairment in reading is secondary to auditory impairment, but certainly much of it is, and the importance of auditory stimulation should not be over-

looked in dealing with reading disabilities.

Impairment in writing. Some aphasic patients are unable to revisualize symbols, and this is a different problem; in aphasia several kinds of difficulties may co-exist. Part of the difficulty aphasic patients have in writing, however, may be referred to impairment of reauditorization.

It is not uncommon to find that a patient whose spelling level is fifth or sixth grade cannot write a sentence either spontaneously or to dictation. Exploration of this difficulty led to the observation that a patient who could not write a sentence to dictation, like *The grass is green* or *I have a car*, could write the same sentences correctly if they were dictated in two-word rather than four-word units.

With therapy based upon auditory stimulation, patients become able to write longer and longer sentences to dictation, and then to write sentences and paragraphs spontaneously. This paragraph was written during the sixth week of therapy by a patient whose original spelling level, as tested by the Wide-Range Achievement Test (*6*), was grade 2.2, and who could not write a simple sentence at this time.

> I think I should probably tell you about my trip from San Francisco to Japan. It took about 2½ weeks. All we see were sea gulls. They'd fly through the air for about 30 seconds, then drop in the water. Finally, we arrived at our destination, Japan. Then for a long trip down Japan. It was about 600 miles all told to the southern tip. We spent 5 days there. The Hiroshime blast which most of us saw, took place then. It is all grown up now, though.

Most aphasic patients, even those who are able to write some words, cannot write letters of the alphabet dictated in random order, nor point to the letter named by the examiner. Letter names have to be relearned before spelling can progress.

Patients with severe auditory impairment often fail to grasp an isolated word spoken by the examiner. Using the word in a familiar phrase helps, if the phrase is not longer than the patient can handle. Unless the desired word is repeated again at the end of the phrase the patient may write some other word in the phrase. Patients tend to show improvement in percentage of dictated words written correctly, and in ability to spell longer and longer words. Being able to remember longer sequences of letters appears to account for much of the improvement, although revisualization is involved in writing words as well as in writing letters.

Therapy

Aphasic disorders are complex, but it would appear that effective therapy must be based on diagnosis of the source of difficulty. Our results indicate that all aphasic patients show some impairment in auditory reception (7). Intensive study of the language behavior of aphasic patients indicates that many aphasic difficulties stem from this basic problem. It seems to follow that therapy should be devised which takes this into account.

Effective techniques must be based on two principles. First, the patient must hear language, and secondly, he must grasp what he hears. To insure the latter he should always be asked to respond in some way. If hearing speech alone were enough, as it may be in some cases, spontaneous recovery would occur, for people hear language all day long. But what most aphasic patients learn from this barrage of stimuli is not to listen. They miss enough to become confused, then anxious and depressed. To avoid this discomfort they learn to shut speech out.

Van Riper (*9*) emphasizes the importance of timing in supplying verbal patterns. He considers it essential to

say the word when the patient wants it. To accomplish this he verbalizes what the patient is doing while he is doing it. He tries to ascertain the exact moment the idea is in the patient's mind, and say it for him then.

The following additional techniques have been productive in various stages of therapy.

1. *Following directions.* If the patient can walk he may be asked to go about the room and do various things, such as turn out the light, look out the window, open the door, or pull out a chair. If he is not ambulatory objects may be assembled on the desk for him to use. He is instructed to listen, then carry out the direction. Directions may be repeated if necessary, and gradually increased in length and difficulty.

2. *Identifying objects in pictures.* Pictures which portray a situation, such as covers of the *Saturday Evening Post*, are used for this. The patient is instructed to look at the picture, then point to what is designated. Directions may be made increasingly complex by asking for main objects first with one word, then using descriptive phrases, such as *the man with the package under his arm, the hole in his stocking, the boat under the bridge, the woman who is angry*, and so on. In the experience of the writer patients with no speech have begun to repeat what the examiner said during this procedure, and even to ask, 'What?' or comment, 'I don't see it.'

3. *Overlearned language.* Aphasic patients want to talk. Using some of the highly over-learned automaticisms of speech often produces this result quickly and gives encouragement. The patient is asked first to listen, then speak along with the clinician counting, saying the days of the week, the names of the months, the letters of the alphabet, familiar rhymes, or singing, utilizing language patterns the patient may have retained. Although patterns may be defective at first, errors tend to disappear. They should not be corrected. The object is to stimulate as much language as possible. When a pattern is effectively re-established the patient may be asked to respond with some of the units, by answering questions such as, *What day is this? How many children have you? When is Christmas?*

4. *Repeating.* The patient is asked to listen while the clinician says a word or phrase, then say it. The emphasis is on listening. Whatever the patient says is accepted. Familiar words and expressions should be used. The clinician should select materials with which the patient can have as much success as possible, increasing length gradually as the patient becomes able to handle longer units.

5. *Sentence completion.* A sentence is read to the patient and he is asked to listen and finish it if he can. Patients have success with this long before they are able to name things or formulate sentences themselves, probably because a well-established auditory association is provided. Familiar expressions should be used such as: *I want a cup of* —; *The street runs north and* —; *Put your money in the* —.

6. *Oral opposites.* The clinician provides one word of a pair, such as *yes* and *no*, *hot* and *cold*, *winter* and *summer*, and so on, and asks the patient to supply the word opposite in meaning. This also works on the principle of providing a well-established auditory association, and serves to give the patient success in early stages of therapy when vocabulary is limited.

7. *Specific questions.* Asking a direct question often produces a correct response before the patient is able to name objects or formulate

much language himself. For example, a patient could not name a grocer in a picture but replied, 'Why, he waits on the trade,' when asked what the grocer did. Questions which are specific, but asked casually seem to produce the best results. For this reason it is better to ask them in relation to some activity so they arise naturally, than as a catechism.

8. *Naming pictures.* In the experience of the writer using a group of 40 or 50 pictures of common objects produces better results than drilling on three or four, possibly because there is more stimulation and less anxiety-producing failure. The patient is told to look at the picture and say anything he can; if he can't say anything about it, to listen while the clinician names it. The clinician names the picture if necessary, repeats the word in familiar phrases, and finishes by giving the patient a chance to supply the word at the end of the sentence, or use it in answering a question. It might go like this: *Coffee; you drink coffee; strong black coffee; coffee with cream; how do you like your coffee; I want a cup of* —; *What did you have for breakfast?* This is used to stimulate and evoke language, rather than as a drill. Procedure should not be too rigid for any response the patient makes, or any interest he shows should be utilized.

9. *Identifying letters, words and sentences.* A group of phrases or sentences, then single words, and finally individual letters are printed on a page, and the patient is asked to point to the one the examiner names. Short sentences are usually easier than individual words, perhaps because they offer more cues for recognition. Vocabulary should not usually exceed word-recognition ability.

10. *Reading in unison.* This is often helpful early in therapy. Sentences or short paragraphs should be used, depending on the patient's ability to follow. At the beginning the paragraph is read in unison five times. The clinician points to each word as he reads and is careful to stay with the patient. Material is read slowly but with normal inflection. There is no attempt to correct errors. On the fourth and fifth reading, rate may be increased. Some patients have produced their first intelligible words through this technique. Percentage of intelligible words tends to increase, sometimes rapidly, sometimes gradually. When this becomes easy the patient may be asked to read the paragraph alone after it has been read in unison; then the amount of reading in unison may be reduced. Connecting words which often present difficulty began to come in naturally with this procedure, and to appear in speech more often. In the final stages of therapy patients are asked to respond to questions regarding content, and finally to retell what is read.

11. *Listening to grasp the main idea.* When patients first begin to read or listen to longer materials they retain unimportant details or random words, and do not grasp the meaning. Reading sentences aloud to the patient, asking after each one, *Who was it about?* or *What was it about?* and requiring the patient to respond with one word, helps the patient to listen more effectively, and to express ideas more accurately. When the patient can do this he may be asked, *Who was it about?* and *What did he do?* or, *What was it about?* and *What did it say about it?* From sentences it is possible for the patient to move to telling what a paragraph is about, and outlining the main ideas. Short paragraphs should be used first, then ones of increasing complexity.

12. *Reading words and phrases.* The

Dolch Basic Sight Vocabulary (*4*) and Sight Phrase Cards (*3*) were used for this. The same procedure was used as in naming pictures. The patient was shown the card, told to read it if he could, if not to listen while the clinician said it, then try again. Records showed that patients improved both in ability to repeat and read an increasing number of words and phrases.

13. *Writing letters of the alphabet to dictation.* Letters are dictated in random order. This is basic to reading and writing, and tended to produce improvement in spelling and word recognition. There is no need to continue it after the patient can perform it rapidly.

14. *Spelling aloud.* This is also basic to writing and word recognition. It can be done in unison with the clinician, through repetition, or by the patient alone, depending on his ability. It would not be used unless writing were included in therapy goals.

15. *Writing words to dictation.* After the patient's spelling level has been ascertained, it is helpful to dictate 20 or 30 unstudied words each day, below the level at which the patient is working. This gives practice in listening and shows the patient that he can write more than he thought he could, which tends to speed up the recovery process.

16. *Writing phrases and sentences to dictation.* This is primarily an exercise in listening. In order to write the phrase or sentence the patient must both grasp it and retain it while it is being written. He must be able to say it to himself accurately as he writes. Vocabulary used must not exceed spelling level, but need not be restricted to words the patient has written before. Sentences should be gradually increased in length. Patients should move from writing sentences to dictation to writing short sentences about things that happen, or sentences using spelling words; then to writing connected sentences about things that interest them.

Summary

The significance of auditory impairment has been discussed in relation to aphasic difficulties in understanding spoken language, articulation, word finding, expressing ideas, and reading and writing. The importance of auditory stimulation in therapy has been emphasized, and techniques have been described for adapting basic principles to therapy.

The value of therapy based on auditory stimulation is that patients improve not only in ability to understand, but in ability to talk and read and write at the same time. Patients not only progressed faster than previous patients had done, when these difficulties were treated as separate problems, but seemed to encounter fewer difficulties in all areas.

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An Investigation Of The Spontaneous Speech Sounds Of Five-Year-Old Deaf-Born Children

Josephine Carr

THE NEED for objective research in the area of speech development in young deaf-born children has existed for years. In many schools for the deaf, speech sound elements have been taught to deaf-born children according to a specific order, which has resulted in the molding of the speech development of deaf children into a set pattern. Yale (*6*) suggests that the following speech sound elements be taught first: *wh* [ʍ], *p* [p], *th* [θ], *oo* [u], *t* [t], *a(r)* [ɑ], *k* [k], *ou* [aʊ], *s* [s], etc. Joiner (*5*) suggests that speech sound elements be taught in this order: *wh* [ʍ], *p* [p], *th* [θ], *a(r)* [ɑ], *oo* [u], *t* [t], *m* [m], *ou* [aʊ], *-u-* [ʌ], *k* [k], *th* [ð], etc. Most schools for the deaf have their own orders for the development of consonant and vowel sounds, and these orders have many aspects in common. Essentially, their similarities may be summed up as follows:

1. The back vowel sounds are developed first.

2. The front consonants are the first to be taught.

Research findings on the development of speech sounds by hearing children bring to light several facts that are in direct contrast to the order frequently used to teach speech sounds to deaf children. Certain specific trends have appeared in the mastery of speech sounds by hearing infants, according to Irwin (*1*, *2*). These trends may be indicated as follows:

1. The front vowels are mastered first by infants (*2*).

2. The back consonants appear first in infants' speech (*1*).

This lack of correlation between the development of speech sounds in deaf children and the mastery of speech sounds by hearing infants caused the writer to question the common approach to the teaching of speech sounds to deaf children and to embark upon an investigation of the spontaneous speech sounds of deaf-born children, to determine (a) whether it is possible to devise a more satisfactory approach to the problem of the presentation of the elements of speech to deaf-born children and (b) whether this approach may be based on the spontaneous speech sounds of the individual children.

The first problem to be investigated was the number of speech sounds (or phonemic types) and their relative frequency in the spontaneous vocalization of five-year-old deaf-born children. The traditional assumption of many teachers of the deaf in the past has been that no functional sound ele-

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ments are used by deaf-born children when they enter school for the first time. The writer investigated the spontaneous speech sounds of deaf-born children, with the possibility in mind of suggesting certain changes in the teaching of speech sounds to such children in order to retain and correct the spontaneous sounds that are present.

A second area investigated was the relationship of the spontaneous speech sounds of deaf-born five-year-old children to the speech sounds of hearing infants at various age levels. The writer gathered data in an attempt to determine what speech sounds are present in the deaf child's vocalization at the time he enters school. These data were then compared to those of the Irwin investigation (*1*, *2*) to arrive at an evaluation of the speech sounds of deaf-born five-year-old children, using norms established for hearing infants at specific age levels.

A third problem given consideration was that of recommendations for the teaching of speech to deaf-born five-year-old children. There were several approaches to teaching speech which were considered. The first was that of retaining the approach to teaching speech widely used by teachers of the deaf. Another approach to teaching sound elements to deaf-born children was that of teaching the sounds in the order in which hearing infants master these sounds. A third approach was the possibility of suggesting a new order for the teaching and retention of speech sounds in deaf-born children, based on the relative frequencies of the spontaneous use of the various sounds by deaf-born five-year-old children as found in this investigation. The teaching of specific speech sounds would thus be flexible, depending upon the spontaneous speech production of each child.

Procedure

The investigation of the spontaneous speech sounds of deaf-born five-year-old children was conducted at the Iowa School for the Deaf and covered a period of more than two years. From the group of beginning children each year were selected those who fell within the limitations set for the subjects for the investigation. Those requirements were that (a) the children be five years of age sometime during the investigation period, (b) their hearing loss be severe enough and acquired early enough to have prevented their development of connected, functional speech,[1] and (c) they had not received formal speech instruction previous to their entrance in the Iowa School for the Deaf. The total number of subjects investigated was 48, of whom 27 were boys and 21 were girls.

The sampling technique used by investigators at the Iowa Child Welfare Research Station was followed as closely as possible. The technique was as follows: A phonetic transcription (using the International Phonetic Alphabet) was made of the speech sounds uttered by the subjects included in the investigation. The unit of measurement for the transcriptions was a behavior unit, rather than a time unit. Such sounds as were carried on the exhalation phase of a single respiration of the child were transcribed phonetically. A sample of 30 such breaths was taken three times, at intervals of two weeks, for each subject. During the time that the writer was conducting the investigation, the subjects were not given speech instruction in the classroom.

[1] The term 'deaf-born' is used by the writer to refer to any child whose hearing loss was present at birth or occurred before he had acquired functional communicative speech.

TABLE 1. Reliability quotients in terms of patterns of sounds.

Subject	Agreements (A)	Disagreements (D)	A+D	$\frac{A}{A+D}$
1	102	55	157	65
2	109	32	141	77
3	242	34	276	88
4	16	2	18	89
5	118	29	147	80
6	212	20	232	91
7	108	19	127	85
8	136	85	221	62
9	112	21	133	84
10	98	11	109	90
11	136	33	169	80
12	114	34	148	77
13	142	43	185	77
	1645	418	2063	80

The sound samples were taken during the afternoon playtime hours of the children. From three to five subjects were selected each time a sample was to be taken, and these children were taken to a large kindergarten classroom where they were allowed to engage in undirected activity.[2] Play equipment was provided the subjects, and as they participated in play activity the speech sounds uttered by one child were transcribed. During the time that the vocalizations of the children were transcribed, the writer did not enter as an active participant into their activity.

Reliability of the observer was established by the percentage of agreement of her speech samples with the speech samples made at the same time, on the same child, by Irwin. The writer and Irwin made separate transcriptions of the utterances of each of 13 children, nine of whom were subjects used in the investigation. The problem of reliability of the writer's speech sound data was approached in two ways:

(1) Agreement with Irwin in terms of the total number of vowel and consonant types, respectively. The over-all agreement for vowel types was 96 per cent, for vowel frequency 97 per cent, for consonant types 86 per cent, and for consonant frequency 96 per cent.

(2) Agreement with Irwin in terms of the pattern of elements occurring on each respiration or breath. The over-all reliability quotient[3] for the 13 transcriptions was based on 1645 agreements and 418 disagreements, an index of 80 per cent, as shown in Table 1.

The device used for indicating central tendencies in the data was chiefly the profile, or histogram, as used by Irwin (*3*). This graphic method was used primarily because it is a visual device easily understood by most readers. The total area under each of the compared profiles was taken as 100 per cent. It represents the total frequencies of all sounds in each of the compared sets of elements. The area for each speech element in a profile represents the frequency of the element and its proportionate part of the 100 per cent.

Profiles were made for the vowel production of the total subjects in the investigation, as well as profiles for the consonant usage. The data also were analyzed from the standpoint of sex differences, and profiles were made

[2] It was discovered early in the investigation that at least three children were necessary to the group play to insure vocalization. When there were fewer subjects present, there often was a tendency for the children to play individually, without vocalization.

[3] The index was reached by dividing the total agreements by the sum of the total agreements and disagreements: Reliability Quotient = A/A+D. This is Chen's breath agreement method (*4*) for establishing the reliability of speech sounds.

TABLE 2. Relative frequencies, in per cent, of vowels uttered by deaf-born five-year-old children and by hearing infants [Irwin data (2)].

Vowels	*Deaf-Born Children*	*Hearing Infants*		
		5-6 Mo.	*11-12 Mo.*	*23-24 Mo.*
i	3.13	1.77	4.15	11.42
ɪ	15.85	24.82	23.02	19.22
e	.75	1.58	3.25	3.11
ɛ	19.82	31.27	27.56	12.19
æ	5.85	2.62	4.13	4.38
a	1.66			
ʌ	23.03	23.44	16.17	13.15
ə	1.62	.25	.20	1.12
ɜ˙	.33			
ɑ	5.23	1.52	6.48	13.09
ɔ	3.01	.20	.64	3.08
o	3.45	.17	1.33	4.54
ʊ	11.60	8.20	7.71	10.27
u	4.65	4.17	5.36	4.50

for vowel and consonant usage for both boys and girls. The types and frequency of the spontaneous speech sounds of the five-year-old deaf-born children were then compared to the types and frequency of the speech sounds of hearing infants in various stages of their speech development.

Results

Three transcriptions, of 30 breath units each, were made for each of the 48 subjects, making a total of 144 recordings. There were 4,320 breath units transcribed, including a total of 13,561 speech sounds, of which 7,952 were vowel sounds and 5,609 were consonant sounds. The age range of all subjects at the time of the first transcription was 59 months to 71 months, the range for both boys and girls being the same. The mean age of all subjects at the time of the first transcription was 64.4 months, the mean age of the boys being 63.5 months and of the girls 65.5 months.

Vowel Sounds. During the transcription of 90 breath units, the girls used more vowel types and used these types with higher frequency than did the boys. The range of vowel types

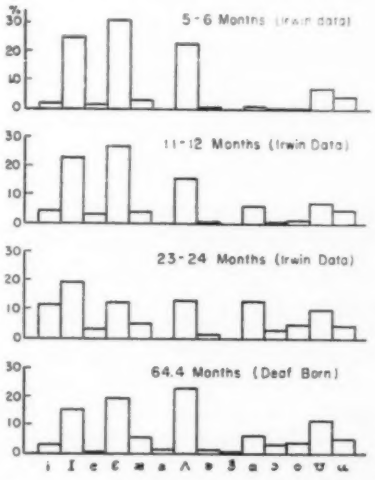

FIGURE 1. Vowel profiles (Hearing infants and deaf-born children).

TABLE 3. Relative frequencies, in per cent, of consonants uttered by deaf-born five-year-old children and by hearing infants [Irwin data (*1*)].

Consonants	*Deaf-Born Children*	*Hearing Infants*		
		5-6 Mo.	*13-14 Mo.*	*23-24 Mo.*
p	11.35	.67	1.07	4.32
b	20.58	7.97	9.48	8.97
m	12.19	7.53	9.23	8.41
w	9.13	2.64	4.36	6.42
ʍ	1.05	.02	.34	.03
f	8.35	.73	.45	1.18
v	.82	1.22	.44	.52
θ	.61	1.49	.67	.36
ð	.19	.17	.43	.61
t	2.64	1.68	3.96	8.31
d	6.79	15.73	19.42	15.31
n	2.71	1.03	2.07	9.74
s	2.01	1.65	2.81	7.42
z	0.00	5.21	.69	.51
ʃ	.87	.33	.25	.84
ʒ	.04			.09
l	3.16	1.37	.57	2.08
r	.20		.18	2.67
j	4.69	2.15	3.78	1.73
ŋ	0.00	.03	.31	.62
k	1.57	1.82	2.36	4.36
g	.66	4.12	4.91	2.67
h	10.47	41.29	29.75	10.93
ʔ	0.00	5.84	2.31	1.90

used by all subjects during the 90 breaths was from 8 to 14 types, with the mean number of vowel types used by all subjects being 11.69 vowels.

The data for 90 breaths were used to compute the per cent of each vowel type of the total frequency of vowels used by all subjects. Profiles were made showing the relative frequency of each vowel type and compared to the vowel types used by hearing infants at these three age levels: 5 to 6 months, 11 to 12 months, and 23 to 24 months. The vowel data, as shown in Table 2 and Figure 1, indicate that the five-year-old deaf-born children used vowels in a manner and degree more like hearing infants of 11 to 12 months than at the other age levels compared. They used vowel sounds more frequently than they used consonant sounds.[4] With the deaf-born five-year-old children, as with the hearing infants, front vowels were used more often than were back vowels. The front vowels were used twice as frequently as the back vowels by all subjects in the investigation.

Consonant Sounds. All subjects used from 7 to 20 consonant types during 90 breath units, the mean number of consonant types being 12.5 consonants. The girls used a lower, narrower range of consonant types than did the

[4] Of all sounds used by the subjects, 58.63 per cent were vowel sounds.

boys during 90 breaths, but the mean number of consonant types used by girls was slightly higher than that used by the boys.

The consonant data for 90 breaths, as with the vowels, were used to compute the per cent of each consonant type of the total frequency of consonants used by all subjects. Profiles were made showing the relative frequency of each consonant type and compared to the consonant types used by hearing infants at these three age levels: 9 to 10 months, 13 to 14 months, and 23 to 24 months. The consonant data, as shown in Table 3 and Figure 2, reveal that the five-year-old deaf-born children used consonant sounds in a manner and degree not much like hearing infants at any of the 15 age levels investigated by Irwin. The consonant profile of the deaf-born children does, however, resemble parts of the profiles for the three age levels shown in Figure 2. The five-year-old deaf-born children used, for the most part, voiced consonants more than they used voiceless consonants. They used front consonants more than they used back consonants. They used them with greater frequency than did even the hearing infants of 23 to 24 months. All subjects in the investigation used front consonants three times as frequently as they used back consonants.

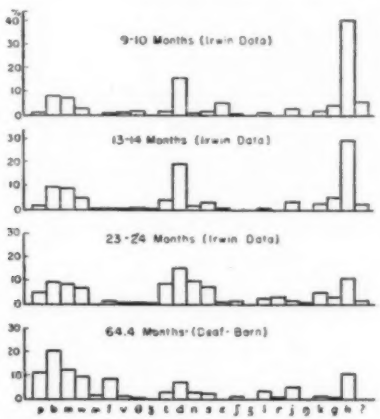

FIGURE 2. Consonant profiles (Hearing infants and deaf-born children).

TABLE 4. Relative frequencies, in per cent, of vowels uttered by deaf-born five-year-old boys and girls.

Vowels	*Boys*	*Girls*
i	3.37	2.84
ɪ	16.23	15.39
e	.80	.70
ɛ	18.92	20.92
æ	5.77	5.95
a	1.60	1.74
ʌ	23.84	22.04
ə	1.50	1.80
ɜ˞	.23	.45
ɑ	4.65	5.95
ɔ	2.76	3.31
o	3.76	3.06
ʊ	11.87	11.26
u	4.76	4.58

Sex Differences. As was pointed out in the discussion of vowel and consonant sounds, small differences existed in the use of vowels and consonants by the boys and girls in the investigation. In most cases, these differences were not great enough to be significant. More, and slightly larger, differences appeared between the per cent of frequency of consonant sounds than between the per cent of frequency of vowel sounds of the two groups. Tables 4 and 5 and Figure 3 present the relative per cent of frequency of vowel and consonant sounds used by the boys and girls.

Conclusions

The data of this investigation indicate that the subjects included in the

TABLE 5. Relative frequencies, in per cent, of consonants uttered by deaf-born five-year-old boys and girls.

Consonants	*Boys*	*Girls*
p	13.30	9.18
b	21.43	19.43
m	14.71	9.37
w	7.76	10.66
ʍ	1.62	.42
f	6.95	9.90
v	1.11	.49
θ	.30	.94
ð	.14	.26
t	2.56	2.72
d	7.02	6.54
n	2.19	3.32
s	1.93	2.12
z	0.00	0.00
ʃ	.51	1.28
ʒ	.03	.04
l	2.33	4.08
r	.24	.15
j	4.18	5.25
ŋ	0.00	0.00
k	1.82	1.28
g	.81	.49
h	9.04	12.16
ʔ	0.00	0.00

investigation used many spontaneous speech sounds in their undirected vocalization. These speech sounds were natural in quality and were uttered in a manner free from strain and self-consciousness, so often present in the taught speech of deaf-born children.

Examination of the data reveals that the development of vowel and consonant sounds by the deaf-born children did not continue much beyond the level of hearing infants of 12 to 13 months. The possibility suggests itself that babies, with or without normal hearing, babble and vocalize in much the same manner during the first year of life and that after that period, deaf children fail to develop many more speech sounds because they are not able to imitate what they do not hear or see. The difference in the use of consonants by the deaf-born children and hearing infants of one year lies in the greater use of front consonants by the deaf-born children. Again, the possibility suggests itself that the five-year-old deaf-born children have developed front consonants beyond the first year level because they have been able to see and imitate, if not hear, those consonant sounds not present in such great frequency in hearing infants of one year of age. The consonant sounds making the difference were the front consonants, easily visible to the eye.

The data of this investigation do not support entirely the assumption that deaf children should be taught vowel and consonant sounds in the manner and order popular with many teachers of the deaf. Neither do the data support wholely the suggestion that deaf school-age children can master vowel and consonant sounds in the order in which hearing infants master these sounds. The data of this investi-

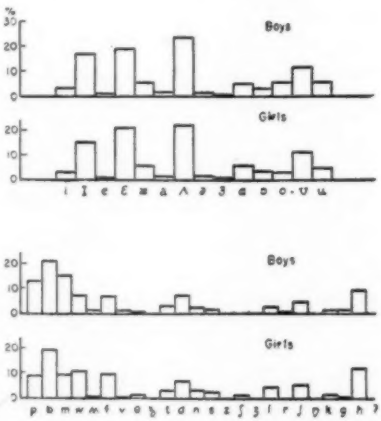

FIGURE 3. Vowel and consonant profiles for deaf-born boys and girls, age 63.5 months.

gation rather point up the fact that the five-year-old children studied by the writer (1) used front vowels more than back vowels, which fact tends to relate their speech development to that of the hearing infant, but appears to be contrary to the order preferred by many teachers of the deaf, and (2) used front consonants more than back consonants, which fact tends to relate their speech development to the order of speech development used by many teachers of the deaf.

The conclusion reached by the writer is that the spontaneous speech sounds of five-year-old deaf-born children, whatever those sounds may be, should be recorded at the earliest opportunity by every teacher of such beginning deaf children. These spontaneous speech sounds should be incorporated into daily speech activities by the teacher in order to insure the retention of these sounds in further speech development. Rather than following any set order laid down by a traditional method of teaching, such spontaneous speech sounds should be accepted, encouraged, corrected when necessary by the teacher, and then used as the basis for the further teaching of speech to the child who is deaf.

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A Comparative Study Of Methods Of Estimating The Severity Of Stuttering

Rex V. Naylor

ATTEMPTS to assay the severity of stuttering have ranged from an objective to a subjective approach. The former has included scaling by psychophysical means (*27*), and measurement of (a) the adaptation effect in stuttering (*5, 14, 18, 19, 20, 21, 27, 28, 29*), (b) factors related to fluency (*17, 36*), and (c) grammatical and phonetic factors (*6, 7, 8, 9, 11, 12, 13, 31*).

Efforts to evaluate severity of stuttering as it appears to the stutterer have included measurement of (a) emotional and psychological reactions to stuttering (*34*), (b) the effects of the penalty felt by the stutterer to be attached to his stuttering spasms (*35*), (c) the relations between severity of stuttering and personal adjustment (*2*), and (d) the effects on stuttering of anxiety, fear, dread, shame and other attitudes (*1, 4, 10, 15, 16, 32*).

The therapist's success in guiding an adult stutterer toward better speech depends to a large extent upon how accurately he defines what stuttering means to this particular stutterer. Estimates of the severity of stuttering are commonly based on what can be seen and heard when the stutterer speaks. It would seem important to determine the relationship between these easily observable characteristics of stuttering and the stutterer's own estimate of the severity of his defect.

The aim of this study was to compare methods of estimating the severity of stuttering. Particularly, an effort was made to determine the probability of agreement between estimates of severity of stuttering made by a group of graduate students in speech correction from recordings of stuttered speech and the stutterer's own estimate of the severity of his stuttering, both while making the recording and for a period of several months before the experiment.

In view of the effect of delayed side-tone upon the reading rate of normal speakers (*3*), one of the purposes of the study was to investigate the relationship between the effects of side-tone delay upon the reading rate of stutterers and other hypothetical indices of severity of their stuttering.

Definitions of Terms

Stuttering. At present any definition of stuttering must stand on assumption rather than proof. Solomon (*33*) has suggested that stuttering in adults is not synonymous with stuttered speech but includes it. Stuttered speech might be regarded as but one set of behavioral characteristics

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(which happens to be a visible and audible set) in the total process of stuttering. This process may involve not only stuttered speech but also the stutterer's reactions—physical, mental and emotional—to his impediment. The study reported here includes a tentative effort to test this point of view, developed in part out of the writer's experience as a stutterer.

The onset of stuttering in childhood may not include these subjective reactions at all or to as marked a degree as they are found in the adult stutterer; and such reactions may have nothing to do with its original cause or causes. Yet perhaps they are in the adult stutterer inseparable from his stuttered speech, to be treated where possible along with it.

Adaptation. Adaptation as applied to stuttering is commonly defined as a progressive decline in frequency of stuttering with successive readings of the same passage or continuous reading of different passages. Considering the way in which stuttering is tentatively described above, adaptation might be defined more precisely as a progressive decrease in the aspects of stuttering which are at present measurable, particularly its audible characteristics. To simplify the experimental procedure and to test further a concept of adaptation employed by Luper (*28*), adaptation was defined for the purposes of the experiment reported here in a still narrower sense, as a progressive decrease in reading time in successive readings of the same passage.

Experimental Procedure

Persomel. The subjects were 24 male stutterers ranging in age from 16 to 35 with a mean age of 21.0 ± 4.0. Twenty-one had received or were receiving clinical treatment for stuttering. No subject was accepted for the study who was not considered a stutterer both by himself and by the experimenter.

Thirteen graduate students in speech correction served as judges. The experimenter carried out all procedures with subjects and judges in the Department of Speech of The Ohio State University.

Procedure for subjects. The subjects went through the following procedure individually:

a. The subject gave a single estimate of the severity of his stuttering for the preceding several months, on a scale from one to nine, with *one* representing least severe stuttering and *nine* most severe stuttering. The same one-to-nine scale was used for all subsequent judgments of severity.

b. The subject estimated the total range of severity of his stuttering for the preceding several months, within a scale of one to nine.

c. The subject was trained from a scale of stuttered speech developed by Lewis and Sherman (27), then tested on his ability to recognize the level of severity of scaled samples of stuttered speech from recordings.

d. The subject read for disc recording a 63-second portion of a standard passage, then estimated how severely he had stuttered while reading.

e. After listening to his recording twice, the subject chose one of the seven consecutive nine-second portions of the passage as most representative of the severity of his stuttering in the entire passage. He rated this sample on a scale from one to nine.

e-1. While listening to the recording again, the subject rated the severity of stuttering in each of the seven nine-second portions of the passage. The mean of these ratings was used for

comparison with the other variables.

f. The subject was instructed that he was to record a given passage six times. The setting was the same as for Step d, although no recordings were made. The subject's percentage decrease in reading time from the first to the sixth reading of the passage was taken as a hypothetical measure of adaptation to stuttering.

g. The subject made a second estimate of the severity of his stuttering for the preceding several months.

h. The subject read the 'adaptation' passage under a condition of relatively fixed intensity and .18-second delay of side-tone. With the sixth 'adaptation' reading as a base, his percentage increase in reading time was taken as a hypothetical measure of his adaptation to the effects of delayed side-tone. Equipment used was the second model of the Audio Signal Delaying Unit (*30*), a Western Electric 633 microphone and Permaflux PDR-3 earphones.

i and j. The subject was given copies of the Speech Attitude Scale (*25*) and Speech Experience Inventory (*26*) and requested to fill them out at home.

Readings and nine-second samples were timed with a stop watch. Nine-second samples from the original disc recordings were transferred to tape with a Magnecorder PT-6 tape recorder.

Procedure for judges. The 13 judges were assembled as one group for the judging procedure, which included the following steps:

1. The judges were trained and tested as a group on their ability to recognize the level of severity of scaled samples of stuttered speech from recordings, in the same manner as the subjects.

2. The judges rated, on a scale from one to nine, the severity of stuttering in each subject's 'representative' sample (See Step e above) heard in isolation from a tape recording.

3. The judges listened to each subject's total recording and rated the severity of stuttering in the entire passage.

4-a and 4-b. The judges listened to each subject's total passage again and rated the severity of stuttering in each of the seven consecutive nine-second portions of each passage.

The recordings were presented in a different random order each time for Steps 2, 3 and 4. The means of judges' ratings in each of these steps were used in the statistical analysis.

Findings

The subjects were ranked according to the results from each step. Statistical treatment of the results yielded the rank difference correlation coefficients listed in Table 1. Variables in the table correspond to steps in the procedure for subjects and judges. The Speech Attitude Scale (*25*) is represented by Variable i, the Speech Experience Inventory (*26*) by Variable j. Variable 4-a stands for the means of judges' ratings of the subject's 'representative' sample heard in context. Variable 4-b represents the means of judges' ratings of the seven portions of each subject's total passage. The main findings were as follows:

1. Correlations between the subject's first estimate of the severity of his stuttering for the preceding several months and his responses to the Speech Experience Inventory and Speech Attitude Scale were significantly different from zero at the one and five per cent levels of confidence, respectively.

2. Correlations between the subject's first estimate of the severity of his stuttering for the preceding several months and the judges' ratings of the

TABLE 1. Rank difference correlation coefficients* computed from the obtained ranks for 24 adult stutterers in each step of the experimental procedure.

	Subjects' Variables											*Judges' Variables*			
	a	*b*	*c*	*d*	*e*	*e-1*	*f*	*g*	*h*	*i*	*j*	*2*	*3*	*4-a*	*4-b*
a	—	.91	.06	.23	.23	.41	−.16	.72	−.22	.45	.54	−.03	.35	.17	.35
b		—	.13	.08	.05	.24	−.20	.61	−.04	.39	.52	−.21	.17	.01	.14
c			—	−.26	−.30	−.05	−.18	.01	.34	−.01	−.03	−.06	−.22	−.14	−.09
d				—	.98	.80	−.21	.43	−.50	.20	.00	.64	.76	.72	.74
e					—	.80	−.16	.46	−.50	.15	.00	.62	.73	.69	.72
e-1						—	−.13	.66	−.39	.34	.16	.53	.74	.56	.78
f							—	.11	.06	−.35	−.33	−.13	−.24	−.35	−.25
g								—	−.20	.23	.17	.14	.42	.14	.43
h									—	−.30	.08	−.50	−.65	−.64	−.70
i										—	.76	.21	.21	.20	.21
j											—	.04	.11	.09	.03
2												—	.68	.83	.65
3													—	.86	.96
4-a														—	.84
4-b															—

* All values of *rbo* of ±.51 or greater, significant at the one per cent level of confidence. All values of ±.40 or greater, significant at the five per cent level of confidence. (*Rbo* is assumed to be equivalent to a Pearson product-moment correlation coefficient *r*).

severity of the subject's stuttering from recordings were not statistically significant.

3. The correlation between the subject's first estimate of the severity of his stuttering for the preceding several months and his estimate of the severity of his stuttering while reading a passage for recording was not statistically significant.

4. The correlation between the subject's first estimate of the severity of his stuttering for the preceding several months and the mean of his estimates of severity in the seven equal parts of his recorded passage was significant at the five per cent level of confidence.

5. Correlations between the subject's estimate of the severity of his stuttering while reading a passage for recording and the judges' ratings of the severity of his stuttering from these recordings were significant at the one per cent level.

6. The judges made four ratings of the severity of stuttering in the recordings: from the subject's 'representative' sample heard both in and out of context; from the entire passage considered as a whole; and from the entire passage considered in seven equal parts. Correlations among all of these ratings were significant at the one per cent level.

7. The hypothetical measure of adaptation to stuttering adopted in this study showed no statistically significant relationship to any of the other variables.

8. Negative correlations between the subject's percentage change in reading time occasioned by a condition of delayed side-tone and the judges' ratings of severity of stuttering from recordings of the subject's

normal oral reading were significant at the one and five per cent levels.

9. The negative correlation between the subject's percentage change in reading time occasioned by a condition of delayed side-tone and his own estimate of the severity of his stuttering while reading a passage for recording under normal conditions was significant at the five per cent level of confidence.

Summary and Conclusions

Null hypotheses under test were that there is no statistically significant relationship between any pair of the variables derived from steps in the procedure. Specifically, the two null hypotheses most closely related to the main purposes of the study were:

1. There is no statistically significant relationship between ratings of severity of stuttering made by a group of graduate students in speech correction from recordings of the oral reading of adult stutterers and the stutterers' subjective ratings of the severity of their stuttering for the preceding several months.

2. There is no significant relationship between adult stutterers' estimates of how severely they stuttered while reading a short passage for recording and the estimate of severity made by a group of graduate students in speech correction from these recordings.

On the basis of findings from this study, the first of these hypotheses was not rejected. The second hypothesis was rejected at the one per cent level of confidence.

The study was concerned with a comparison of methods of estimating the severity of stuttering. Several methods were employed, including objective measurement and evaluation of overt characteristics of stuttering, and the stutterer's subjective evaluation of his defect. Within the limits of the population of this study, the following conclusions may be drawn:

1. Of the methods tested, the two that showed the highest probabilities of agreement with the stutterer's first estimate of the severity of his defect for the preceding several months were (a) the method of measuring the extent of the stutterer's speaking experience and (b) the method of measuring the stutterer's attitude toward situations requiring speech. This conclusion is based on the assumptions that the Speech Experience Inventory (*26*) measures the extent of speaking experience and that the Speech Attitude Scale (*25*) measures attitude toward situations requiring speech.

2. Of the methods tested, the method of judgments of severity of stuttering by a group of trained observers from recordings showed the highest probability of agreement with the stutterer's evaluation of the severity of his stuttering in the recording situation.

3. The stutterer's estimate of the severity of his stuttering while reading a short passage for recording did not consistently reflect his estimate of the severity of his stuttering for the preceding several months.

4. There were statistically significant relationships among four types of judgments of severity of stuttering made from recordings by trained observers: ratings of a 63-second passage considered as a whole; ratings of the seven equal parts of the passage; and ratings of a sample chosen by the subject as representative of his stuttering in the entire passage, and heard by the judges either in or out of context.

5. Measurement of adaptation to stuttering, insofar as it was accomplished by the hypothetical measure

adopted in this study, was not a useful method of evaluating the severity of stuttering, either as rated by subjects and judges in a 63-second oral reading situation or as estimated by the stutterer for the preceding several months.

6. The method of estimating severity of stuttering on the basis of the stutterer's percentage change in oral reading time while reading under conditions of delayed side-tone proved to have statistical significance. The effects of side-tone delay showed a statistically significant negative relationship to the judges' ratings of severity of stuttering from recordings, and a less significant negative relationship to the subject's estimate of the severity of his stuttering while making the recording.

Recommendations

The following hypotheses are offered for further testing:

1. Judgments of severity of stuttering made by trained observers solely on the basis of what is heard in any given situation agree consistently with the stutterer's estimate of the severity of his stuttering in the situation, but do not agree consistently with the stutterer's estimate of the severity of his stuttering for the preceding several months.

2. A survey of the extent of the stutterer's experience in speaking or a test of his attitude toward situations requiring speech yields results consistent with his own estimate of the severity of his stuttering for the preceding several months.

It is suggested further that:

1. It would seem valuable to discover what relative weight the individual stutterer gives to the factors involved in stuttering in a given situation. But even more fundamental is the need to discover what these factors are and to find ways to measure them. On the basis of this and other studies, it appears likely that one of these factors, and an important one from the point of view of the stutterer, is his attitude toward situations in which speech is required. Much therapy is aimed directly or indirectly at the stutterer's attitudes, often without the therapist's having more than a superficial knowledge of what those attitudes are, what part they play in limiting the effects of therapy, and how much success the therapist has in changing them.

The Speech Attitude Scale (*25*) and Speech Experience Inventory (*26*), used in this study, were designed to test these factors in normal speakers. Similar instruments designed for testing stutterers could be valuable not only in the ways suggested above, but in helping the therapist to determine quickly the situations in which therapy is most needed.

2. The practice of estimating the severity of stuttering on the basis of its overt audible and visible characteristics should be subjected to critical analysis. Stuttering, in the sense in which it was tentatively defined at the beginning of this article as in part an 'inner disturbance,' may take place without easily discernible overt symptoms. If one may judge by the stutterer's avoidance reactions, he wants to conceal or to overcome these embarrassing outward characteristics of stuttering. But his success in doing so is perhaps not good evidence of a reduction in the severity of other factors involved in stuttering.

3. In view of the apparent relationship between audible characteristics of stuttering and the stutterer's reaction to the Audio Signal Delaying Unit, further research is indicated to define this relationship.

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The Use Of Motion Pictures In Effecting Group Adjustment Changes In Speech Handicapped Adolescents

D. E. Morley

Stanley Berlinsky

SPEECH THERAPISTS are well aware of the potential effects of speech disorders on the adjustment of individuals with defective speech. At least four authors have reported findings which indicate ill-effects of speech disorders upon certain groups of speech-handicapped individuals. Brown and Hull (*4*) have reported a study in which stutterers rated themselves significantly lower in social adjustment than groups of unselected speakers to whom they were compared. Bender (*3*) has indicated that, as measured by the Bernreuter Personality Inventory, stutterers as a group are more neurotic, more introverted, more submissive, less self-confident, and less sociable than non-stutterers. Simon (*19*) relates how persons with speech defects disintegrate in highly complex and stimulating social situations. Backus (*1*) points out that a group of patients, non-segregated as to type of speech disorder, showed signs of social pressure. This occurred not only in those who stuttered, but also in those with cleft palate, hearing loss, cerebral palsy, aphasia, voice disorders, and articulatory disorders.

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Speech therapists and others have attempted to offset the effects of speech disorders upon the adjustment of the individual by various means. A psychosomatic approach to therapy is recommended by some (*12*); group therapy is favored by others (*8*, *9*). Psychiatric interviews, counselling, psychotherapy are used and recommended by still others (*5*, *7*, *10*, *18*). Each of the methods attempts, in varying degrees, to bring about an improved personal and social adjustment of the person with a speech disorder.

Background and Purpose

For several summers certain motion pictures have been shown to one of the groups of persons enrolled for speech training at the University of Michigan Speech Clinic. As used originally, such films were included to supplement group classes where 'social patterns' were the subject. Here introductions, greetings, grooming, conversations and so forth were included to provide opportunities in the training program for the young people to learn and to practice skills useful in their social contacts. As a whole, this sort of experience was considered to be a practical, helpful addition to the speech program. Those who taught the class believed that changes were discernable in the pupils, but no objective measures of any changes were

attempted. Additional films were included each summer, and the scope of the class material was changed until it became concerned chiefly with adjustment problems and the 'social patterns' took a secondary, supplementary place. Finally, it was felt that some measure of the influence of the educational films themselves upon certain adjustment areas should be undertaken. To do this it would be necessary to define certain specific aspects of adjustment to be studied, to select some sort of device for measuring any changes in those adjustment aspects, to decide the basis for selecting the experimental and control groups, to select suitable educational films to be used, and to plan the method of presenting them.

This study promised to be somewhat unique inasmuch as it was hoped that the principal medium for effecting group attitude changes would be the selected educational films. A perusal of the uses to which motion pictures have been put showed their having been used in teaching of reading, science, mathematics, social studies, language arts, vocational arts, music education, art, business education, safety education, health and physical education, and guidance. They have been included in the training of industrial workers, sales personnel, in medical and nursing education, and in religious education. They have been utilized by public libraries, the federal government and the armed services (*15*). Little mention was found of films being used as a therapy device with speech handicapped individuals.

The general reaction of those who have used films in various ways has been that 'as a rule the educational film is regarded as a means of stimulating learning which occurs in rather rapid order fashion. Many studies tend to indicate the rapid rate at which attitudes, insights, relationships, and concepts are developed' (*16*). Of the application of films in guidance, Kolivosky (*14*) has said:

> Films dealing with the topic of personal maladjustment are unique in educational value. They can present a whole problem situation in an organized, concise, and interesting manner . . . Film presentation of a personal-problem situation is particularly effective therapy in that students are given an opportunity to evaluate themselves more objectively by seeing others react in a problem situation similar to their own.

This sort of comment reinforced the convicition that films could be expected to be useful in effecting adjustment changes in individuals in a speech training program.

The purpose of this study was to determine whether adjustment changes are discernable in a group of speech handicapped adolescents who have been shown certain educational movies in an experimental situation.

Procedure

A group of students between the ages of 12 and 19, enrolled at the University of Michigan Speech Clinic for an intensive summer speech training program, was used in this study. The speech disorders represented in the group were: two students with cerebral palsy speech, one with cleft palate speech, five stutterers, and two articulation cases. Eight were females; two were males.

The Bell Adjustment Inventory, Student Form (2) was the device chosen to obtain an indication of the adjustment status of each of the individuals. Inasmuch as the experiment was concerned with individuals of the ages indicated above, it was felt that this test was best suited to the needs of the study. Reviewers of the usefulness of the Bell Adjustment Inventory

report that its main advantages are its compactness, simplicity, and careful selection of questions (*6*). Eckert and Keyes (*11*) and Gilkinson and Knower (*13*) have found this to be true when using the Inventory in connection with investigations of adjustment status in voice cases and public speakers, and in estimating the usefulness of standardized personality tests in correlation with skill in speech.

At the first session of the summer program, the Adjustment Inventory was administered to all the students enrolled for training. Each individual's paper was checked and scored. Four test scores were obtained for each person: home, health, social, and emotional adjustment. Individuals were paired according to their general similarity of test results in all four areas. The two groups, unidentified as to age, sex, or speech defect, were presented to an impartial staff member who arbitrarily designated one group as the experimental group and the other as the control.

Movies were shown to the experimental group over a period of six weeks, averaging three times per week. During the time that this group was seeing the movies, the control group was engaged in a variety of activities such as typing, art work, remedial reading, and spelling.

The four categories of adjustment contained in the Bell Inventory were followed in the selection of the films to be used (*20*). Movies from one of the adjustment areas were used at each showing. Very little discussion was initiated by the instructor operating the projector, for it had been agreed by the investigators beforehand that directed discussions aimed at bringing out salient points of each film were to be avoided. Any discussion which did arise was initiated by the young persons in the audience.

On the last day of the training program the Bell Adjustment Inventory was re-administered to all the students at the same time, both the experimental and control groups. Each individual's paper was checked and scored and, again, four test scores were obtained for each student. The scores for each individual on the first test were

TABLE 1. Test, re-test and difference scores for each subject in experimental and control groups in four adjustment areas.

Subject	*Adjustment Areas*											
	Home			*Health*			*Social*			*Emotional*		
	Test	*Re-test*	*Diff.*	*Test*	*Re-test*	*Diff.*	*Test*	*Re-test*	*Diff.*	*Test*	*Re-test*	*Diff.*
Exp. 1	8	10	−2	11	9	2	15	17	−2	17	18	−1
Cont. 1	4	4	0	13	5	8	15	22	−7	21	16	5
Exp. 2	3	1	2	7	6	1	13	9	4	10	11	−1
Cont. 2	1	3	−2	7	6	1	13	11	2	14	16	−2
Exp. 3	11	13	−2	11	10	1	21	14	7	16	21	−5
Cont. 3	16	13	3	14	16	−2	18	15	3	16	19	−3
Exp. 4	2	2	0	7	4	3	17	22	−5	10	10	0
Cont. 4	5	15	−10	10	6	4	14	19	−5	6	12	−6
Exp. 5	4	2	2	6	5	1	20	13	7	4	3	1
Cont. 5	7	3	4	14	14	0	22	11	11	6	4	2

compared with his scores for the second test. Changes in each category were noted. Results of tests of matched pairs were examined and differences between the student of the experimental group and the one in the control group were noted.

Results

Table 1 shows test scores in each adjustment area of both the experimental and control groups and the difference noted between first and second tests. A lower second score indicates improved adjustment in the respective areas as measured by the Bell Adjustment Inventory.

Statistical analysis was made by the use of the standard error of the difference between mean gains (*17*). Table 2 shows the total difference scores of the experimental and control groups in the various adjustment areas.

The calculation of changes occurring in the two groups revealed that:

1. No statistically significant differences occurred between the two groups in the areas of home, health, and emotional adjustment.

2. A statistically significant difference was noted between the two groups in the area of social adjustment. The experimental group showed improvement in social adjustment scores. This difference occurred between the 1 and 2 per cent level of significance.

Conclusions

The outcome of this experiment seems to indicate that:

1. The viewing of selected educational films by speech handicapped adolescents changes social adjustment as measured by the Bell Adjustment Inventory.

2. In other areas, home, health, and emotional adjustment, any changes which occurred seem to be chance variations.

TABLE 2. Total difference scores between experimental and control groups in each of four adjustment areas.

	Home	*Health*	*Social*	*Emotional*
Experimental	0	8	11	−6
Control	−5	11	4	−4
t $(df = 4)$	1.86	1.99	4.375	1.02
P	$>.10$	$>.10$	$.01<P<.02$	$>.10$

3. The use of educational films may be applicable as a therapy technique in a group therapy program for speech handicapped adolescents.

Since the ratio of female to male subjects used was 4 to 1, another experiment of this type might be undertaken with a more equal sex distribution of subjects.

Factors other than seeing the movies may be thought to have been responsible for social adjustment changes in the experimental group. For example, it may be thought that the total therapy program itself was conducive to improved social adjustment. This may have been true to some extent, but more numerous and more obvious changes were seen in this area in the experimental group which saw the movies rather than in the group as a whole or in the control group.

This study should be regarded only as one of indication. Further experimentation with educational movies as an adjunct to speech therapy is needed in order to substantiate the findings herein reported. In addition, in another experiment using educational films, it would be of interest to substitute projective testing methods to determine whether a more complete understanding of the individual and his adjustment processes could be obtained.

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    Health Adjustment.

    Body Care and Grooming, 18 min., sound, McGraw-Hill Book Co., N. Y.

    Body Fights Bacteria, 15 min., sound, Coronet Instructional Films, Chicago.

    Common Cold, The, 10 min., sound, Encyclopedia Brittanica Films, Inc., Wilmette, Ill.

    For Health and Happiness, 11 min., sound, U. S. Dept. of Agriculture, Washington, D. C.

    How to Be Well-Groomed, 10 min., sound, Coronet.

    How to Eat, 10 min., sound, Teaching Films Custodians, Inc., N. Y.

    Emotional Adjustment.

    Act Your Age, 13 min., sound, Coronet.

    Control Your Emotions, 10 min., sound, Coronet.

    Importance of Goals, 19 min., sound, McGraw-Hill.

    You and Your Time, 10 min., sound, Association Films, 347 Madison, New York 17.

    Home Adjustment.

    Family Circle, 31 min., sound, McGraw-Hill.

    Family Life, 31 min., sound, McGraw-Hill.

    Family Teamwork, 16 min., sound, Frith Films, 1816 N. Highland, Hollywood 28, Cal.

    You and Your Family, 10 min., sound, Association Films.

    You and Your Parents, 13 min., sound, Coronet.

    Social Adjustment.

    Are You Popular?, 10 min., sound, Coronet.

    Dinner Party, 20 min., sound and color, Simmel Meservey, Inc., Beverly Hills, Cal.

    Fun of Making Friends, 10 min., sound, Coronet.

    How to Get Cooperation, 10 min., sound, Coronet.

    Shy Guy, 13 min., sound, Coronet.

    Ways to Better Conversation, 10 min., sound, Coronet.

    You and Your Friends, 10 min., sound, Association Films.

An Experimental Study Of Tongue Flexibility In Children With Cleft Palates

Jack Matthews

Margaret C. Byrne

IN THE LITERATURE of speech pathology some credence is given to the theory that children with cleft palates do not have as much tongue flexibility as do children with normal palate structures. Brown and Oliver (*2*) state that in slightly less than half of 33 cases examined the activity of the tongue was such that it was considered to have a possible adverse effect on speech; and in two cases, an almost certain effect.

Van Riper (*3*) has pointed out that:

> It is necessary to give a good deal of tongue, jaw, and lip exercise to the majority of cleft palate cases who have had operations after the speech habits were formed. Many of these individuals seldom employ these articulatory structures in a well-coordinated manner. Instead, they use the tongue to fill space and to block the air passage, causing it to be extremely inactive and sluggish.

Berry (*1*) suggests a possible lingual anomaly responsible for many of the phonetic problems of the cleft palate child:

> . . . in 65% of the cases [of several hundred observed and tested] the tongue lacked the requisite mobility and muscular coordination for the normal production of these sounds [t, d, l, s, z, ʃ, ʒ] . . . These children found it impossible to point the tip of the tongue either inside or outside of the mouth.

She observed that the rapidity of movement was below normal. Less than 2% of the children could produce a tongue tap or trill, a test of the mobility of the tongue tip. She concluded from her observations that:

> The muscular action and coordination of the tip and blade of the tongue have been impaired by some anomaly in structure or developmental function. Certainly in any prognosis of speech it is necessary for the clinician to reckon not alone with the closure of the nasal port and with the emission of the breath stream. It may be equally important to determine to what degree lingual action can be improved. A child 'crippled in the palate' also may be 'crippled in the tongue.'

Problem

To test the hypothesis that children with cleft palates have inferior tongue flexibility, tongue flexibility measurements were taken on a group of 19 children with cleft palate and/or cleft lip and 19 children (matched in age, sex, grade, and I.Q.) with normal palates.

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Subjects

The children with cleft palates who were selected for this experiment were students enrolled for speech correction in the Pittsburgh Public Schools. They were scattered throughout 16 schools in the city. Fourteen of the students had complete clefts of the hard and soft palate; half of this group had uni-lateral clefts of the lip and three had bi-lateral cleft lips. Two had clefts of the soft palate and no associated lip anomaly. Two had clefts of the hard palate; one of the two had a uni-lateral cleft of the lip. One child had only the uni-lateral cleft of the lip. Five of the children with complete clefts of the hard and soft palate had neither palatal repairs nor speech aids. These children had been enrolled in speech correction classes for an average of 3.6 years.

Each of the cleft palate and/or cleft lip children was matched for age, sex, grade and I.Q. with a child in the same school who had a normal palate. All the matched controls had essentially normal speech. In the elementary schools the principal and the homeroom teacher of the cleft palate child assisted in the selection of the match. In the high schools the vocational guidance director aided in the selection. Where it was feasible, the control was selected from the same home room.

Procedure

All children were visited by the examiner within a period of six weeks. Each examination took approximately 10 minutes. No one but the child and the examiner was present during the interview. Both the child with the cleft palate and his matched control subject were seen on the same day. A simple explanation and a demonstration preceded the obtaining of each measure of tongue flexibility. The child was given one practice trial before a 'score' was recorded. The score consisted of a count of the number of designated tongue movements or sound productions per given unit of time. A Veeder Counter was employed to provide greater accuracy in counting. Four consecutive trials were used for each of eight measurements. Subsequent statistical analysis was based on total scores, i.e., the summation of scores on each of the four trials.

The first five measurements were used to test the grosser tongue movements. For number I, the student was asked to move his tongue out and in (for 10 seconds) as rapidly as he could with his mouth open. For number II (eight seconds) he was to move his tongue (tip outside the mouth) from side to side as rapidly as he could with his mouth open. In number III (10 seconds) with his mouth open and his tongue out he was alternately to touch the tip of the tongue to the upper and then the lower lip. Number IV (10 seconds) required him to rotate the tongue around the outside of the mouth touching the upper lip, the right cheek, the lower lip, and left cheek. Number V (10 seconds) was the same as number IV except that in V he was to rotate the tongue around the inside of the mouth between the lips and the teeth.

The last three indicators (A, B, and C) used the speech sounds [tɑ], [kɑ], and [θɑ] for five seconds each. In A the subject was asked to repeat [tɑ], [tɑ], [tɑ] as rapidly as he could; in B, [kɑ], [kɑ], [kɑ]; and in C, [θɑ], [θɑ], [θɑ].

In order for the examiner to develop some degree of observational skill and to test the reliability of the

TABLE 1. Intercorrelations among eight measures of tongue flexibility for 19 non-cleft palate subjects.

	II	*III*	*IV*	*V*	*A*	*B*	*C*
I. Out and in	−.02	.54	.54	.59	.55	.51	.36
II. Side to side		.20	.14	.03	−.18	−.06	.07
III. Touch upper and lower lip			.92	.96	.59	.69	.74
IV. Rotate outside of mouth				.93	.61	.72	.74
V. Rotate inside of mouth					.64	.70	.74
A. [tɑ tɑ tɑ]						.83	.70
B. [kɑ kɑ kɑ]							.93
C. [θɑ θɑ θɑ]							

measures, these tests were administered first to 30 students with normal palates: 10 college students and 20 third and fourth grade children. The reliability of all the measurements was satisfactory.

Results

The reliability of each measurement was found for both the experimental and the control groups by determining the correlation of the sum of trials one and four with two and three. The resultant *r*'s, when corrected by the Spearman-Brown Formula, ranged from .91 to .98.

Tables 1 and 2 present the intercorrelations among the eight measures for the non-cleft palate and for the cleft palate groups. For both groups

TABLE 2. Intercorrelations among eight measures of tongue flexibility for 19 cleft palate subjects.

	II	*III*	*IV*	*V*	*A*	*B*	*C*
I. Out and in	.36	.42	.44	.56	.34	.57	.42
II. Side to side		.35	.28	.42	.46	.60	.66
III. Touch upper and lower lip			.91	.91	.57	.66	.69
IV. Rotate outside of mouth				.91	.60	.55	.67
V. Rotate inside of mouth					.68	.69	.67
A. [tɑ tɑ tɑ]						.77	.80
B. [kɑ kɑ kɑ]							.80
C. [θɑ θɑ θɑ]							

the three measures (A, B and C) were highly intercorrelated. In the non-cleft palate group these three indicators were moderately related to all of the other measures except II, side to side movement of the tongue. This exception was not noted in the cleft palate group where the correlations of II with the other measures were higher than in the non-cleft palate group. Although no factor analysis was carried out, an inspection of the intercorrelations suggests a general factor present in all the measures with the possible exception of II. One might also postulate a factor associated with 'speech movements' (A, B and C) and a factor associated with 'non-speech movements' (I, III, IV and V). Measure II seems to be a fourth possible factor more evident in the non-cleft palate subjects than in the cleft palate cases.

Means and standard deviations were computed for each of the measurements for the two groups. Differences in the means and the significance of these differences are summarized in Table 3. For the measures I-V which involve tongue movement without sound production there were no significant differences between the cleft palate and non-cleft palate groups. The one value of *t* which came closest to statistical significance was for the measurement of side to side movement. In this case the cleft palate group had a higher 'tongue flexibility score' than the non-cleft palate group. For measures A, B, and C (all involv-

TABLE 3. Measurements of tongue movements and sound production. Means, standard deviations, differences, and *t*'s. Two groups of 19 subjects each.

Measure		*Non-Cleft Palate*	*Cleft Palate*	*Diff.*	*t*
I. Out and in	M	111.9	106.3	5.6	.66
	SD	24.9	27.0		
II. Side to side	M	131.8	151.1	−19.3	1.65
	SD	29.6	40.5		
III. Touch upper and lower lip	M	74.1	81.1	− 7.0	.93
	SD	23.5	23.2		
IV. Rotate outside of mouth	M	72.3	73.5	− 1.2	.001
	SD	20.3	18.9		
V. Rotate inside of mouth	M	63.1	61.2	1.9	.30
	SD	20.7	16.6		
A. [tɑ tɑ tɑ]	M	94.7	81.5	13.2	1.91
	SD	22.3	20.3		
B. [kɑ kɑ kɑ]	M	96.1	67.3	28.8	4.50*
	SD	21.0	16.0		
C. [θɑ θɑ θɑ]	M	92.0	70.2	21.8	2.98*
	SD	26.1	18.5		

*Significant at 1% level of confidence.

ing speech production) the non-cleft palate group had higher 'tongue flexibility scores.' In the case of measures B and C which involved production of [kɑ] and [θɑ] the differences were significant at the 1% level of confidence.

It must be kept in mind that many measurements of tonque flexibility might be used. Measures I-V of the present investigation were selected from a larger group of possible measures largely on the basis of reliability. These five measures are reliably measuring at least some aspects of what is considered tongue flexibility. Although the data show cleft palate children to be slower in rate of sound production of [tɑ], [kɑ], and [θɑ] than non-cleft palate children, the results of this study do not support the hypothesis that children with cleft palates have an over-all inferior tongue flexibility.

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Historical Notes On Speech Correction In The Pre-Association Era

Paul Moore

Dorothy G. Kester

THE ORGANIZATION which has become the American Speech and Hearing Association was established in 1925, not spontaneously, but as a reflection of the presence of a growing professional group with special problems and interests. In the quarter-century preceding the formalization of the Association, speech correction became a recognized service in many public schools, and an accepted area of teacher training in some colleges. This pre-1925 period produced philosophies, personalities, literature and speech correction programs which deserve careful review by the modern speech correctionist. Several volumes would be required to approximate an adequate report on all of these historical facets; it is possible to touch briefly on several of them, however, in what might be called speech correction in education.

Educational and Social Philosophies

Shortly before 1900, Dewey and others were producing a change in educational concepts. Their thinking was expressed in the Preface to *Teachers' Manuals*, No. 25, published in 1897 (*13*), which contains Dewey's 'My Pedagogic Creed.' The Preface was written by Samuel T. Dutton, superintendent of schools, Brookline, Mass., who said:

> The isolation of the teacher is a thing of the past. The processes of education have come to be recognized as fundamental and vital in any attempt to improve human conditions and elevate society.
>
> The missionary and the social reformer have long been looking to education for counsel and aid in their most difficult undertakings. They have viewed with interest and pleasure the broadening of pedagogy so as to make it include not only experimental physiology and child study, but the problems of motor training, physical culture, hygiene, and the treatment of defectives and delinquents of every class.
>
> The schoolmaster, always conservative, has not found it easy to enter this large field; for he has often failed to realize how rich and fruitful the result of such researches are; but remarkable progress has been made, and a changed attitude on the part of the educators is the result.

It was this type of thinking, this educational philosophy, which invited speech correction into the schools. Once the educator admitted his responsibility to atypical children, he opened the way for speech correction.

Another influence affecting the educational attitude toward exceptional children resulted from the child labor laws. Barring children from work

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forced them to remain in school, the atypical child as well as the normal. Teachers soon asked for help with these exceptional children and a few got it, including assistance with children having speech defects.

Speech Correction in the Public Schools

Chicago was one of the first cities to start a speech correction program. The 1910 annual report of Ella Flagg Young, the superintendent of schools, said:

> Immediately after my entrance upon the duties of superintendent, letters began to arrive filled with complaints and petitions by parents of stammering children—complaints that the schools did nothing to help children handicapped by stammering to overcome their speech difficulty, but left them to lag behind and finally drop out of the schools, petitions that something be done for those children. It was somewhat peculiar and also suggestive that these letters were followed by others from people who had given much attention to the study of stammering and wished to undertake the correction of that defect in stammerers attending the public schools. Soon after the schools were opened in the fall, I sent out a note, requesting each principal to report the number of stammerers in the school. It was surprising to find upon receiving the replies that there were recognized as stammerers 1,287 children. A recommendation was made to the committee on school management to the effect that the head of the department of oral expression in the Chicago Teachers' College be authorized to select ten of the members of the graduating class who showed special ability in the training given at the college in that particular subject and should be further empowered to give additional training of these students preparatory to their undertaking, under the direction of the department, the correction of the speech defects of these 1,287 children. The Board appropriated $3,000 toward the payment of these students who should begin their work after graduation at the rate of $65 a month during a period extending from February 1 to June 30. Instead of gathering the children to be treated for their troubles into one building or into classes, a plan was adopted of assigning to the young teacher a circuit and having her travel from school to school during the day. The object of this plan was to protect the young teacher from the depression of spirit and low physical condition that often ensue from continued confinement in one room for several successive hours at work upon abnormal conditions. It was soon found that the term 'stammering' had been assumed to be very general in its application and many children who had been reported as stammerers had not the particular defect reported but some other form of speech defect. (*18*)

The superintendent's report in 1913 indicated that at the end of the first year of work, six of the original 10 speech teachers were dismissed:

> . . . the assumption being that the number of children needing special attention had been reduced sufficiently to make ten teachers unnecessary, but it has been found necessary to reinstate the original number. The calls from many schools for aid have been numerous, showing that the number of children having defects would continue large because of the influx of new cases. The calls also indicate increasing alertness on the part of the teachers in noticing defects and growing confidence in the value of corrective exercises . . . In Chicago, the evidence of marked improvement in class work following immediately after the correction of the speech defect is positive. There have been cases of retrogression but they have been only a minority of the children cured by the corrective exercises in the last three years. (*19*)

New York City evidenced its first interest in speech correction in 1909 when the superintendent of schools requested an investigation of the need for speech training in those schools. Two years later (1911) recommendations were made to the board of education that four aspects of the problem be given favorable attention. First, the number of handicapped children was to be ascertained and case histories taken on them. Second, speech

centers were to be established offering daily lessons of from 30 to 60 minutes. Third, English teachers were to be used as instructors, after they had had further training. Fourth, a department for training teachers should be established (*9*).

Evidently, this 1911 report did not receive much attention because it was not until June, 1916 that the New York Board of Education invited Dr. Frederick Martin to become the first Director of Speech Improvement, and issued the statement:

> Plans are under consideration whereby the board of education will provide in the very near future for its thousands of children suffering from defective speech, thus wiping out all handicaps and setting a standard for normal American children. A special speech department will be organized with a medical specialist at its head. Every child with a speech defect will be studied, diagnosed and prescribed for. (*9*)

A number of other cities scattered over the country established speech correction programs in 1916 and in the years immediately following.

Speech Correction in the Colleges

Speech correction as an organized part of the curriculum in the colleges and universities also began to develop about the same time. The 1910 report of the Chicago Superintendent of Schools, mentioned earlier, referred to special classes to train the speech correctionists for the schools, and in 1914 the first university speech clinic was established. The events leading to the organization of that clinic and the persons involved deserve special reference since this development and the related courses provided the impetus for the establishment of other university programs.

In about 1911 or 1912, as J. M. O'Neill recalls it, he and James A. Winans discussed the problem of speech handicaps, and both recognized that students with those problems should have help (*5*). In 1913 O'Neill went to the University of Wisconsin, where he was able to add a person to the faculty who would have the single responsibility of doing speech correction. The man chosen from among several was Dr. Smiley Blanton, who had majored in the speech arts as an undergraduate with Winans, and who had continued his education to earn an M.D. degree. The student and faculty respect for 'the man with the medical degree' undoubtedly assisted in the establishment of this first university speech clinic. It is of interest to note that the term 'speech clinic' was selected by Blanton and O'Neill as the label for their new enterprise and that this was the first time the term had been used to designate such an activity.

Literature

The amount of writing which is done in a particular field during a given period probably indicates the relative importance and prominence of that field. This approach to the speech correction literature reveals that in the years from 1900 to 1905 *Poole's Index* listed approximately 15 articles ('approximately' indicates that the content of some listings was not discernable from the titles. Wherever there was a probability that the writing contained some phase of speech correction the article was counted); the *Reader's Guide* contained four references; and in the same five years, the *Quarterly Cumulative Index Medicus* carried the titles of 56 articles and three books. Eighteen of these articles were written by Americans and none of the books.

During the next several years there was a slight, although not consistent, increase in the number of listings, and

most of them were foreign. In 1913 the *Index Medicus* listed 12 foreign and 12 American articles, and one book. That was the first year in which the foreign listings did not outnumber those from the United States. The one book was Bluemel's *Stammering and Cognate Defects of Speech* (*3*). The first World War undoubtedly reduced the amount of writing during that period, but as late as 1920 only 11 foreign articles and 14 from the United States were carried by the *Index Medicus*. By way of comparison, the *Education Index* and the *Index Medicus* will each average more speech correction listings in a single month of the present year than were carried in any 12 months of the pre-1925 years.

The first known periodical devoted to speech problems was a monthly called *The Voice* which appeared in 1879 in Albany, New York. The editor was Edgar S. Werner, who was a stutterer. The name of the publication was changed to *Werner's Magazine*, which title it carried until it ceased publication in 1910 (*5*).

Professional Organizations

The modern speech correctionist recognizes the need for attending conferences and conventions of his professional colleagues if he would remain alert to the progress in his field. In the early part of this century the relatively few correctionists had only slight opportunity for the exchange of professional ideas. At that time there was one 'speech' association which was started in 1891 as the 'Public Readers and Teachers of Elocution' and later became the 'National Speech Arts Association' (*17*). A number of the members devoted part of their time to speech correction and occasionally a paper on some phase of speech correction was presented at the annual convention. It was reported that more than 1000 persons attended several of these meetings. By 1915 the organization had lost its influence and was dissolved by the vote of its members (*15*).

The records of the National Education Association reveal that it also occasionally scheduled a paper on some phase of defective speech at its annual meeting. Between 35 and 50 years ago it would have been possible to hear such reports as: 'The Economic Value of Speech Correction,' by Ira S. Wile (*16*); 'The Importance of Hearing Tests in the Schools,' by Clarence J. Blake (*2*); 'Hindrances to the Development of Language,' by Cecelia Adams (*1*); 'What Teachers Need to Know About Speech Impediments,' by Mrs. J. Ellery Thorpe (*14*).

Almost all of the college teachers of speech in the earlier part of the century were listed as teachers of English. In 1911 the English teachers within the N.E.A. formed the National Council of Teachers of English to further their particular interests. It was evident very soon that the primary objectives of the English teachers were not those of the speech teachers. In December, 1912:

> A number of teachers of public speaking in the colleges met at Evanston, Illinois, December 17, and organized the Public Speaking Conference of the States of the Middle West. (*6*)

In the fall of 1913 a group of speech teachers who felt they had had a particularly exasperating convention experience with the N.C.T.E. remained after the adjournment of that convention to discuss the formation of an organization of their own (*10*). One year later, November, 1914, the National Association of Academic Teachers of Public Speaking was established, and its first convention was held

jointly with N.C.T.E. in November, 1915 (*8*).

The formation of this new speech organization did not at once replace all other groups interested in speech nor did it reduce the interest of the N.C.T.E. in what it called 'Oral English.' For example, from 1915 onward for a number of years, the National Council sponsored a nation-wide 'Speech Improvement Week' in the schools. This campaign focused attention on the betterment of the voices and pronunciation used by teachers and pupils. The extensiveness of the concept of the English group and the vigor with which it pressed its plan even beyond the schools may be judged from the note in 'The Forum,' *Quarterly Journal of Speech Education*, 1919, which stated that the 'National American Speech Week begins Sunday, November 2.' The slogan selected was 'Better Speech for Better Americans.' The idea was elaborated in a paragraph which stated:

> The patriotic movement was endorsed at the Biennial meeting of the General Federation of Women's Clubs, April, 1918. We wish to enlist every individual, home, club, school, church, P.T.A., business organization, newspaper, magazine and foreign language group throughout the nation. (*11*)

At about this same time an organization called, 'The National Society for the Study and Correction of Speech Disorders,' was formed. It had no affiliation with any other professional group and seemed, in fact, to have been a 'one man' association. The *Quarterly Journal of Speech Education*, May, 1918, carried this announcement:

> Dr. W. B. Swift announces that *The American Journal of Speech Disorders and Correction*, the official organ of the National Society for the Study and Correction of Speech Disorders, will start publication in July, 1918. (7)

In February, 1920, the *N.E.A. Bulletin* published the program for the convention of the National Society for the Study and Correction of Speech Disorders which was scheduled to meet that same month in Cleveland (*12*). The president, Walter B. Swift, was then temporarily affiliated with the School of Education, Western Reserve University. No copies of the journal have been found, and there are no evidences of meetings beyond 1921 (*4*). Evidently the organization ceased operation in that year.

The National Association of Academic Teachers of Public Speaking, now called the Speech Association of America, developed rapidly after its establishment in 1915. Several special interests were recognized within the Association, and in 1920 the annual convention contained sectional meetings, some of which were devoted entirely to speech correction. In the succeeding conventions the speech correction sections were continued and extended. These meetings led to an increased sense of unity among those interested in speech defects and as a logical next step an organizational meeting was called at the annual convention in 1925. Eleven persons were present, with Robert West, then of Wisconsin, acting as temporary chairman.

A number of topics were discussed, including academic requirements for membership and limitations on membership, with a consideration of such items as persons doing speech correction and being associated with an educational institution, private practice, research, other requirements for membership, and connections with other organizations. The several persons present divided these topics for special study to be followed by reports at a subsequent meeting.

The organizing group selected as its title, 'The American Academy of

Speech Correction,' which was changed in 1927 to, 'The American Society for the Study of Disorders of Speech.' Parenthetically, to complete the record of name changes to date, in 1936 the title, 'The American Speech Correction Association,' was adopted and in 1948 the organization became 'The American Speech and Hearing Association.'

The early speech correctionist, particularly in the colleges and universities was a 'speech' teacher with an active interest in public speaking, interpretation, forensics, or theatre. The first constitution of the speech correctionists had as one requirement for membership: '. . . a bona fide interest in speech made manifest by continued membership in the N.A.T.S.' (National Association of Teachers of Speech). Concerning this relationship between the two organizations the first president, Robert West, said, 'Their purposes, requirements and organizational structures are so different that they complement each other rather than compete.' The N.A.T.S. expressed its approval of the new organization by passing an endorsing resolution at the 1927 convention.

Summary

Speech defects and speech correction have existed a long time, but speech correction as part of the public educational program is a phenomenon of the present century. The child labor laws and changes in education philosophy probably made the development possible, yet the speech correctionist working in relative professional isolation without any broad plan for the future carried out the steps which led to a professional entity. The trends and influences which were present in the quarter-century preceding the formation of A.S.H.A. have influenced present day speech correction, and therefore, deserve review. It is by looking back occasionally that a proper perspective on the future can be maintained.

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3. Bluemel, C. S. *Stammering and Cognate Defects of Speech.* New York: G. E. Stechert, 1913.
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8. News and notes. *Engl. J.*, 4, 1915, 608-609.
9. Notes in the office of the director of speech improvement, public schools, New York City.
10. O'Neill, J. M. After thirteen years. *Quart. J. Speech Educ.*, 14, 1928, 243.
11. Robbins, K. K. The forum. *Quart. J. Speech Educ.*, 5, 1919, 303.
12. Speech disorders. *Engl. J.*, 8, 1919, 390-391.
13. *Teachers' Manuals.* No. 25. New York: E. L. Kellog and Co., 1897.
14. Thorpe, J. E. What teachers need to know about speech impediments. *Addresses and Proc. N.E.A.*, Boston, 1903, 1031-1036.
15. Trueblood, T. C. Letter to Miss Kester, 1949.
16. Wile, I. S. The economic value of speech correction. *Addresses and Proc. N.E.A.*, New York, 1916, 875-876.
17. Williams, H. A. Presidential address. *Proc. Natl. Speech Ass.* Oak Park, Ill., 1908, 35-53.
18. Young, E. F. *Annual Report of the Superintendent of Schools*, Chicago, 1910.
19. ———. *Annual Report of the Superintendent of Schools*, Chicago, 1912.

Graduate Theses In Speech And Hearing Disorders — 1951

Franklin H. Knower

THIS REPORT on graduate theses completed during the calendar year of 1951 contains the record from 51 colleges and universities. There are 167 master's and 26 doctorate theses. The names of institutions in which these theses were submitted for degrees are arranged alphabetically, with the names of thesis authors arranged alphabetically by type of degree under the names of institutions. An index of the content of theses suggested by their titles is also included. The numbers for doctorate theses are identified in this index by an asterisk following the number.

Titles

University of Alabama

M.A. Theses

1. Loeb, Sandra Rose. The study of speech in interpersonal relationships: 2. Two techniques for recording and analyzing student-instructor conferences.
2. McDowell, Mary Louise. The study of speech in interpersonal relationships: 4. Techniques for analyzing child-adult conversations.
3. McEachern, Carleton Clark. The study of speech in interpersonal relationships: 3. Techniques of recording and analyzing speech behavior by means of sound motion pictures.
4. Pickard, Nancy. Recent developments in the theory of hearing.
5. Spielberg, Martin Harry. The study of speech in interpersonal relationships: 6. Techniques for analyzing group conversation.
6. Ward, Louise. The study of speech in interpersonal relationships: 7. Techniques for describing the behavior of one child.
7. Webster, Elizabeth. The study of speech in interpersonal relationships: 5. Techniques for analyzing visible aspects of speech.

Ball State Teachers College

M.A. Theses

8. Roseberry, William. The relationship between malocclusion and hearing loss in school children.
9. Williamson, Gordon. Voice quality of children as related to inheritance.

Boston University

M.Ed. Theses

10. Emery, Richard M. An evaluation of attitudes of fear and confidence in speaking situations at the eighth and eleventh grade levels.
11. Fitzsimmons, Ruth M. The development of a public relations program in speech therapy for public schools.
12. Garland, Russell. A study of voice and articulation difficulties of high school students in suburban Boston.
13. Haroian, Rose D. Preliminary validation of Mansur's speech sound discrimination test in kindergarten and first grade.
14. Hollien, Harry F. An analysis of a program of speech therapy for children with cerebral palsy.
15. Leavy, Charlotte A. A case study of the speech difficulties of thirty children with cerebral palsy.
16. Monroe, Alice D. Activity group therapy for young stutterers.
17. Nestor, Elizabeth. A course of study for improving voice and articulation in the primary grades of Medford, Massachusetts.
18. Spalding, Lucile T. An analysis of the case records at the Boston University Speech Clinic from 1948 through 1950.

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Brigham Young University

M.A. Thesis

19. Fingerle, Clarence O. An investigation of changes in degree of emotional adjustment affected through psychodramatic techniques.

Brooklyn College

M.A. Theses

20. Brutten, Eugene. Anxiety as a personality factor among stutterers.
21. Calamaras, Peter. Reception and production of language in mentally retarded children.
22. Elliott, Franklyn. A study of the relationship between relaxation and hypnosis with stutterers.
23. Goldschlager, Jean. Reception and production of language in mentally retarded children.
24. Rickenberg, Herbert. Diadochokinesis of articulation of stutterers.
25. Stoll, Bernard. A study of the relationship between relaxation and hypnosis with stutterers.

Carnegie Institute of Technology

M.F.A. Thesis

26. Alexander, Marjorie Marie. A study of the problems of stage-fright in relation to the student of speech, and an original play, *House of Straw*, a play in three acts.

Catholic University

M.A. Thesis

27. Daley, William T. The diagnostic case histories of certain children with articulatory speech defects.

University of Colorado

M.A. Thesis

28. Thebarge, Thomas N. A survey of the voice, articulation, and speech rhythm needs of freshmen students at the University of Colorado.

Cornell University

M.A. Theses

29. Saracco, Gloria Angela. The English pronunciation problems of the native speaker of Japanese.
30. Shepherd, Raymond Francis. Linguistic problems underlying the theory and practice of speech correction.

Denver University

M.A. Theses

31. Burgi, Ernest. Cerebral palsy: Selected literature, code-indexed; compiled from the viewpoint of the speech therapist, with an introduction to historical and modern contributions.
32. Burtscher, Henry. The operation of frustration in the transition to and the development of secondary stuttering.
33. Croley, Hugh. A method of analyzing group psychotherapy.
34. Downs, Marion. Procedures in developing *Out of Silence*, a filmstrip concerned with hearing and hearing disorders.
35. Fosket, Frank. Construction and use of the triangular sociograph.
36. Hartman, Bernard. A study of possible differentiation of auditory function in brain injured individuals.
37. Hays, Ellis. A selected annotated list of materials available for use in the counseling and education of parents of children with speech and hearing disorders, together with suggestions for their use.
38. Hays, Rosemary. A selected annotated list of materials available for use in the counseling and education of parents of children with speech and hearing disorders, together with suggestions for their use.
39. Iverson, Norman. An investigation of common factors in the literature for the speech reeducation of adult aphasics.
40. Keifer, Angela. A survey of the various areas of cerebral palsy rehabilitation and suggestions for the integration of occupational, physical, and speech therapy in treatment of cerebral palsy.
41. Pearson, Dean A. The diagnostic manifestations of stage fright.
42. Radus, Libby. Development of a film strip: *These Untrained Tongues* designed for educators and parents of speech-handicapped children.
43. Rolfe, Mary Eugenie. Some indications of the relationship between general semantics and listening.
44. Saxton, Margaret. A survey of hearing conservation requirements of the several states together with requirements for certification, follow-up and equipment.
45. Scarer, Wilbur G. A survey of the requirements for public school speech correctionists in the various states.

Emerson College

M.A. Theses

46. Kennedy, Grace M. The relationships among articulatory speech defects, per-

sonality maladjustments, educational retardation, and physical deviations.

47. Melick, Louise Ann. Speech disorders related to obstetrical injuries.
48. Williams, Ruth G. Re-education of the adult aphasic.

University of Florida

M.A. Theses

49. Boone, Jerry Neal. A study of the effect of hearing loss of freshmen at the University of Florida on selected measures of their achievement.
50. Davis, Pauline F. The study of materials for auditory readiness on the pre-reading and early reading levels.
51. Johansen, Floye Van Landingham. An analysis of the literature and a bibliography useful to parents of pre-school children with speech defects.
50. Morgan, Elizabeth Annelies. The English language background of the Latin American student at the University of Florida.
53. Morrill, Roberta. An analysis of the services of Florida agencies and organizations available to the public school speech correctionist.
54. McKay, Kelsey Babcock. The incidence of speech defects among the Negro children of Alachua County, Florida.

Florida State University

M.A. Thesis

55. Love, Marion Roberta. An analysis of the number, location, and consistency of consonant substitutions and omission errors in an oral reading and a propositional speech test of articulation.

University of Hawaii

M.A. Theses

56. Costa, Robert Oliver. Beginning studies in linguistic geography in Hawaii.
57. Fox, Lester. A survey of speech difficulties in selected schools of the County of Kauai, Territory of Hawaii.
58. Hervey, Wesley David. A survey of speech defects in selected schools in Honolulu, Territory of Hawaii.
59. Newbrand, Helene Louise. A phonemic analysis of Hawaiian.

University of Illinois

M.A. Theses

60. Guttman, Newman. An analysis of articulation as a function of delayed auditory feedback.
61. Kurtzrock, George Henry. A preliminary investigation of the ear-choice technique in threshold audiometry.

Ph.D. Thesis

62. House, Arthur Stephen. An investigation of the influence of consonantal environment upon the duration, frequency, and intensity of vowels.

Indiana State Teachers College, Terre Haute

M.A. Thesis

63. Jordon, Thomas Edward. An analysis of the characteristics of the exceptional child.

M.S. Thesis

64. Hipple, Charles Alfred. Devising and initiating a speech program with adolescent mentally retarded.

Indiana University

M.A. Thesis

65. Curtiss, James Willard. The use of galvanic skin resistance as a means of measuring anticipation of stuttering.

State University of Iowa

M.A. Theses

66. Boehmler, Richard McDowell. The establishment of the Linn County, Iowa, speech and hearing program.
67. Carr, Mary Josephine. An investigation of the spontaneous speech sounds of five-year-old deaf-born children.
68. Golub, Arnold Jason. The influence of constant and varying word stimuli on stuttering adaptation.

Ph.D. Theses

69. Buck, McKenzie W. An x-ray study of cleft palate, oral and pharyngeal structures, and their functioning during vowel phonation.
70. Sherman, Dorothy Helen. A study of the influence of vowels on recognition of adjacent consonants.
71. Tiffany, William Robert. An exploratory study of vowel recognition as a function of duration, frequency modulation, and phonetic context.

Johns Hopkins University

M.A. Thesis

72. Kuper, Eolin. Speech training for pitch deficient children having articulatory defects, by instruction in musical ear-training in pitch and rhythm perception.

Kent State University

M.A. Theses

73. Brown, William J. A study of the

speech habits peculiar to rural southwestern Ohio as indicated by vowel distortion and substitution.

74. Sawachka, Helen. A vocabulary for primary deaf children.

Louisiana State University

M.A. Theses

75. Blue, Carl Milton. A follow-up study of cases appearing in the L.S.U. Speech and Hearing Clinic from February, 1947, to January, 1951.
76. Brandfon, Winifred Barbara. Speech problems of the mentally retarded child: A study based on case histories.
77. Caraway, Betty Jean. Childhood aphasia: characteristics and exploratory therapeutic methods.
78. George, Albert Donald. Some Louisiana isoglosses based on the workbooks of the Louisiana Dialect Atlas, 1935-1949.
79. Shaver, Ruth Dod. The phonetic features of Hawaiian Pidgin English.
80. Walker, Richard Waller. Contributions of the *Journal of Speech and Hearing Disorders*, 1936-1950, on stuttering, hearing and audiology, aphasia, cleft palate, and cerebral palsy.

Ph.D. Theses

81. Garbutt, Cameron Willis. A study of the dialectal characteristics of six members of the older generation living in the three southern-most counties of Illinois: Alexander, Pulaski, and Massac.
82. Ivey, Sara Mack. The effect of cleft palate operation on the speech of forty-two cleft cases.

Marquette University

M.A. Thesis

83. Paruzynski, Thaddeus F. A study of the speech behavior of stutterers under the influence of circumstances created by inhibiting auditory and visual sensation.

University of Maryland

M.A. Theses

84. Arthur, Robert H. The comparative reliability of the C.I.D. tape-recorded and the Harvard #9 live-voice speech reception tests.
85. Causey, George D. An analysis of specific factors associated with fifty cases of uranoschisis and chiloschisis.
86. Rosenberg, Philip E. An analysis of audiometric tests in one hundred cases of otosclerosis.

University of Michigan

M.A. Theses

87. Backels, Ruth L. Social perception of male stutterers compared with a control group as measured by the Heider Simmel Film.
88. Cooksey, Amy Bloys. Lesson plans for the retraining of persons with dysphasia using historical epochs with tests over each lesson to stimulate speech and discussion and to test reading comprehension.
89. Elliot, Jane. Personality traits of 199 school children with speech deviations as indicated by the California Test of Personality, Primary and Elementary Series, Form A.
90. Johnson, Albert F. An investigation of the hearing program examination for students entering the University of Michigan.
91. Mast, Ruth. Level of aspiration as a method of studying the personality of adult stutterers.
92. Morrison, Margaret. Language factors involved in stuttering.
93. Palmer, David E. The relation of birth order and maternal age to congenital oral cleft occurrence.
94. Pearson, Jack E. A speech reception test for young children.
95. Pesek, Betty C. A compendium of audio-visual aids for use in the public school speech correction program.
96. Solomon, Nancy. A comparison of rigidity of behavior manifested by a group of stutterers compared with fluent speakers.
97. Sponzilli, Maryhelene M. A study of the importance of the rate factor as a cue in the identification of familiar speakers.
98. Weber, Joan B. The incidence of speech defects among children with emotional problems.

M.S. Theses

99. Barker, Elizabeth. A study of certain aspects of personality in given individuals having cleft palate.
100. Cancel-Ferrer, Cruz A. Hearing test (Social Adequacy Index) for Spanish-speaking people.
101. Snyder, William E. A tri-dimensional representation of the front vowel sounds.
102. Wallace, Robert. Level of aspiration as a means of determining the personality of twenty adult dysphasics.

103. Zarcoff, Morton. Correlation between motor and auditory aspects of rhythm.

Ph.D. Theses

104. Dreher, John James. A comparison of native and acquired language intonation.
105. Nelson, Max. A comparison of electrocutaneous differentiation of vowels through a 1-electrode and 2-electrode system.
106. Siegenthaler, Bruce Monroe. Formulation of a diagnostic word test of hearing.

Michigan State College

M.A. Thesis

107. Haight, Harry C. The interrelationship of the human senses.

University of Nebraska

M.A. Theses

108. Bush, Phyllis I. A study of speech and hearing rehabilitation needs in state-sponsored homes for dependent children.
109. Hunter, Addie. A study of the speech and hearing of girls in Geneva, Nebraska, State Training School.

New York University

Ph.D. Thesis

110. Moskowitz, Estelle W. Voice quality in the schizophrenic reaction type.

Northwestern University

M.A. Thesis

111. Brown, Sally Hope. An audiometric evaluation of one hundred cerebral palsied subjects.
112. Brutten, Milton Norbert. A study of certain aspects of visual perception in deaf children.
113. Craig, Rebecca Sue. The nature and frequency of speech defects among first, second, third, and fourth grade children in four Negro schools of Augusta, Georgia.
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Letters To The Editor

(In the September, 1952 issue there appeared a signed editorial by Associate Editor Spencer F. Brown setting forth a point of view with respect to the training of speech correctionists for the public schools. Professor Brown's vigorous and clear statement has been provocative of numerous expressions of opinion, pro and con, and was the subject of discussion in a business meeting at the Detroit convention. Some expressions of opinion have been in the form of Letters to the Editor such as the following and others printed in an earlier issue. Your Editor regards this ferment as a healthy condition, since one of the fundamental purposes of the American Speech and Hearing Association is to 'promote investigation of speech and hearing disorders, and foster improvement of therapeutic procedures with such disorders.'

Because of the interest in Professor Brown's editorial it seems fitting for members of the Association to remind themselves that the *Journal of Speech and Hearing Disorders* is the property of the American Speech and Hearing Association and the servant of the Association's purposes, but that its editorials do not necessarily represent the official opinions of the Association. *G.F.*)

SIR:

I write in reply to the critical editorial by Dr. Spencer F. Brown in the September issue of this *Journal* in an effort to clarify the problems of public school speech correction certification for those who might be in agreement with Dr. Brown's point of view.

He suggests that 'A speech clinician is not a teacher in any reasonable meaning of that term.' He states that 'The speech clinician resembles closely in her professional task various other specialized clinical workers in school systems, such as nurses, physicians, dentists, etc.' He recommends that 'State Departments of Education should adopt as their criteria for certification the ASHA Basic Certificate in Speech and Hearing and discard any existing additional requirements.'

These statements reveal a lack of understanding of the public school speech correctionist's duties. In the first place, when the consumer, the school administrator, employs the product of your teacher training institution, he rarely asks, 'Are you certified by ASHA?' If he is a successful school administrator, if he believes that the philosophy of special education must be in line with the philosophy of general education, if he believes that speech is a personality adjustment which reveals how a child thinks, feels, and behaves, and if he knows that more than 20 clinical minutes per week are required to correct the speech defects common to public school children, the questions he will ask of the public school speech therapist are more like these: 'Do you know the child? Do you understand the learning child, the child who spends five days a week while you are not here in dynamic speaking situations related to living activities in reading, spelling, arithmetic, and social studies? Can you help him to adjust himself through oral communication to these skills and to those others in his classrooms who teach and who learn them? Can you help classroom teachers carry on a program of speech education in which habit-forming experiences, which you cannot provide in isolated clinics, will occur for those children who need to practice their corrections? Can you work with parents, solicit their understanding and

cooperation, and counsel with them lest they undo all the gains your work may achieve? And, lastly, can your work be in some aspects preventive as well as corrective?'

Dr. Brown is right when he reports that public school programs in speech and hearing have expanded tremendously since 1940. His timely editorial reminds us that we need now to take stock of our certification requirements. The equivalent of basic certification in ASHA is not too much in specialized speech correction training. Keep in mind, however, that a public school speech correction program must function within the educational framework, not alone through visitations to a speech pathologist's clinic.

The Basic Certificate of ASHA is inadequate because all of the 200 hours of practice teaching might be done with adults in university clinics or in private practice, supervised by a clinically oriented speech pathologist, with not one minute being spent with children in a public school program. No provision is made for training in parent counseling or group counseling for advanced stutterers. No orientation is provided for keeping school records, attendance, case progress reports, or setting up a speech correction program in the public school situation. No training is given in the crucial problem of public relations with school principals, teachers, nurses, parents, and others, a vital problem because the speech therapist is working as a specialist within a nonspecialist group.

Public school speech therapists know from experience that an effective speech correction program requires a teamwork approach. It cannot be done in a vacuum, entirely in isolated speech clinic sessions, for speech therapy always involves more than correct movements of the speech articulators. Therefore, the therapist must work with the child's classroom teacher, talk her language and know her goals and requirements within the educational program. This cannot be done unless we continue to require educational training and experience as well as more and better speech pathology. Public school speech correctionists are always teachers of children, not limited clinical speech pathologists.

CONRAD F. WEDBERG
Bureau of Special Education
California Department of Education

SIR:

I am writing to comment on the important and provocative editorial by Dr. Spencer F. Brown. . . I think there will be universal agreement as to the desirability of achieving some sort of equalization of basic preparation for speech therapists. I think, too, the advisability of having eligibility requirements set up by members of ASHA is so obvious that it will probably take a long time to achieve! The present study being made under the auspices of the United States Office of Education, under Dr. Romaine P. Mackie, however, should facilitate this matter.

I wish to take issue, however, with the statement that to refer to speech and hearing clinicians as *teachers* is a 'misdefinition.' This is a fundamental difference and deserves our most careful thought. From my experience as both a therapist and a supervisor, I wish to state most emphatically that in my judgment the concept of a speech therapist as a teacher is basically correct and is the most helpful attitude from which to plan a rehabilitation program.

It is obvious that if the speech therapist is to serve in a school system, the

more she knows of the work of that system, the more clearly she understands her place in that organization, and the more she knows of the extra-clinical experiences of her children, the better job she will do.

It is necessary, also, for the hospital clinicians to have this background and information. One great disadvantage of the hospital speech clinic is that it is divorced from the child's normal experiences and that the speech therapist cannot easily make contact with those other important people in the child's life, the class teacher and the student's classmates. If the speech therapist, himself, has no knowledge of educational practices and techniques, he will be at an added disadvantage in this isolated setup.

Finally, I wish to propose the belief that speech therapy is primarily an educational or, to be exact, a re-educational activity. The speech therapist is, per se, a teacher. The therapist needs to know and make use of all that is known of the learning process. He needs to have the teacher's 'bag of tricks,' as his fundamental equipment—the use of multiple sense appeal, the need for direct teaching and motivated drill, the need for application to situations where the child can use the new speech pattern in situations which seem to him important. These are *teaching* techniques.

I think that the danger of splintering our organization is very great. Even greater is the danger of substituting the concept of a 'therapist, pure and simple' for that of the therapist as a teacher of exceptional children. Such a change of base would be, in my judgment, catastrophic.

LETITIA RAUBICHECK
Bureau for Speech Improvement
New York City Board of Education

SIR:

The editorial in the September issue provoked a great deal of discussion among the speech and hearing therapists of this area. We are agreed that many courses required by the various states for certification are quite irrelevant and that criteria accepted by all state departments of education would be beneficial to the profession. The problems created by the 'explosive expansion' of the entire field of speech and hearing have been well set forth.

We question, however, the dichotomy drawn between teachers and speech therapists. Doctors, psychologists, and to some degree, nurses, examine and prescribe. The speech therapist examines, prescribes, and then begins to fill his own prescription. It is in this 'filling of the prescription' that his work differs significantly from that of the other specialists of school personnel with whom you would group him. It is in this area, too, that his work is related to teaching through stimulation and motivation. He may direct drill for the acquisition of new skill. Without a broad background in the fields of education, psychology, and child development, we cannot understand how the speech therapist can possibly correlate his work with that of the classroom teacher to make the transfer of new speech patterns effective within a minimal length of time.

One of the most difficult factors which besets all public school therapists is the transfer of the new speech pattern to general usage. If the therapist knows the work units, the grade vocabulary, and the major motivating techniques, this transfer, with the help of the classroom teacher, comes much more readily.

Most public school therapists are

called upon to work with *groups* of children. They seldom have time to deal with individual cases. As soon as several children are grouped together in a learning situation, factors arise that every therapist and teacher needs to recognize and to be prepared to handle. The speech therapist does not get this kind of training in his specialized courses. He will get it, however, in courses in psychology and education.

What we maintain is: Aren't we over-specializing? Most of our young graduates go into public school jobs. Don't they need to know how a school system is administered, what the problems of administration are, and, more important, how to get along with the school personnel?

In our opinion, we cannot draw any dividing line between the speech therapist in the public school and the classroom teacher, the music teacher, or the art teacher in the public school. They are all teachers dealing with the processes of thinking, learning, and training. They are all interested, first in the whole child—with or without a handicap.

The majority of jobs for speech therapists are created by the public school systems. Surveys show that the majority of cases with which the speech therapist deals are not as severe as one finds in the speech clinics, and they are often of undetermined origin. The therapist is not too often confronted with the question 'What kind of a case have I here?' but rather, 'What can I do to make this child aware of his problem and instill in him a desire to do something about it?'

To us, the dichotomy lies in the field of speech pathology itself. If the young graduate engaged by a public school system has the ability to fill the prescriptions for the less severe case, possesses the knowledge which enables him to make referrals for more severe cases, and has adequate theory and techniques for his major job—that is enough. This necessarily includes education courses since he is *in* the educational field. For those who wish to qualify for positions in clinics, hospitals, highly specialized areas and teacher training, let them go on for graduate study—and *more* of theory and research.

In short, aren't we over-specializing?

Mary Lou Rush
Saint Louis University
Jeannette E. Beard
Saint Louis Public Schools
Lucy C. Elliott
Saint Louis Public Schools
Alice Ross
Webster Groves Public Schools

Sir:

The editorial in the September, 1952 issue of the *Journal of Speech and Hearing Disorders* strikes one with both amazement and consternation—amazement that one so obviously inexperienced in public school work would venture to expound unsubstantiated theories in an editorial column, and consternation for fear that such statements might force thoughtful teachers of speech correction to seek leadership in organizations other than the American Speech and Hearing Association. Several hundred members of the Association who work directly with children are gravely concerned because they realize that the speech correction program is not yet an unquestioned service in all public schools and a reversal in the philosophy presented when state financial reimbursement was secured, so far as Illinois is

concerned, might have adverse repercussions.

If our objective is to improve the speech of American children, we must go where the children are, namely, to the public schools. That is scarcely debatable. If we are to function at maximum efficiency, we must function as an integral part of the total educational program. The failure to recognize this is the basic flaw in the editorial. Education may be said to be the development of an individual to his maximum degree of effectiveness. Speech correction is education. The teacher presents a new form of speech to the child. She helps him distinguish good from poor speech. She assists him in establishing a new concept of his own speech. She creates opportunities for him to use this new speech. Therefore, the correctionist who helps the child become more effective because of his improved speech is a teacher in the truest sense of the word. While teaching may not be the oldest of the professions, it is the most honorable and I, for one, with no envious glances at either the stage or the medical consultation office, am very proud to be called a teacher. I apologize to no man.

Another consideration of prime importance in a public school speech correction program is its acceptance by the entire educational staff. To get this acceptance a teacher in speech correction must have a cultural background that will enable her to understand and appreciate educational work at various levels. That is why many of the better teachers' colleges are asking that their graduates have such courses as Mental Hygiene, Anthropology, Child Development, Testing and Guidance, Child Psychology, the Teaching of Reading, and Children's Literature. Greek and trigonometry have no monopoly on culture. Even a course in geography may well have a legitimate place. The time spent in these courses will accomplish two aims, namely, it will broaden the student's background and, also, it will increase her professional preparation by helping her to recognize the innumerable opportunities for making speech correction a part of the child's total program.

It is commonly recognized that failures in all types of work are not due so much to lack of technical knowledge as to inability to adjust in a particular situation. This truth applies to teachers in speech correction as well as to other workers. Satisfactory adjustment in a public school situation comes, in part at least, as the result of a professional knowledge of education; hence the need for the courses Dr. Spencer Brown would reject. Teachers, like other people, tend to identify with their own kind. Such designations as 'therapist,' 'clinician,' and 'pathologist' create unnecessary barriers to acceptance. It is only to the extent that the teacher in speech correction can make her offering an integral part of the total educational program that she and her work will be accepted by the other staff members. The acceptance needs to be complete or speech correction will continue to be regarded as an interesting but not too essential frill which easily may be sloughed off at the first threat of economic retrenchment. Speech correction is not a frill.

Another very practical consideration is the legal one. In order to use public school funds (and where else can money be found to provide services for the vast number of children who need speech help?), a teacher in speech correction, like a school psychologist, must have a teacher's certificate. This is a wise provision. Both of these specialists, as well as the spe-

cialist in elementary education, work as part of a team that develops and carries out an educational program. All persons concerned must understand the problem and appreciate each member's unique contribution. Again, the need for orientation in the field of education is indicated.

There are several other statements in the editorial which do not survive under careful scrutiny. Among these are:

'. . . 56 semester hours in Education.' Where?

'. . . sit through and pass courses in Education.' Are there not courses in Speech which have to be 'sat through and passed?' We doubt very much that the number of professors in education who are dullards is any greater than the like type in speech.

'. . . Principles of Geography.' Our investigation indicates that in Illinois, at least, the school that makes this requirement does it as a part of the preparation for an elementary teacher's certificate which all correctionists in that school are required to get.

We believe that our basic responsibility is to improve the speech of children. We believe that this is an educational activity. The public school offers the best medium in which to do this because that is where the children are and because of the unsurpassed opportunities available in the framework of the total educational program. The latter includes such things as the naturalness of the setting and the opportunity to work with specialists in child growth and development. Our tax-supported schools which reach every American child offer the opportunity for financial support needed if all children are to be helped. This summarizes our thinking.

This matter is a serious one. We urge that a person who knows the public schools be invited to write an editorial which expresses the thinking of people who have developed successfully the service-giving programs in hundreds of schools.

MARTHA E. BLACK
Division of Special Education
Illinois Office of Public Instruction

SIR:

I would like to answer the Editorial written by Dr. Brown. The word 'answer' is used to infer that certain questions were raised that need a 'retort.'

Let me preface my remarks by stating that until I became Ohio's first State Supervisor of Speech and Hearing Therapy (1945-49), I would probably have agreed wholeheartedly with the point of view so effectively presented by Dr. Brown. While working in the Ohio State Department of Education setting up a new program in speech and hearing, I found that there was an educational point of view as well as a clinical one. It took some time to convince me that the school therapist needed some education courses—but now—well—the Brown Editorial leads to this *Retort*.

It is true that certification requirements vary considerably from state to state and something should be done about unification! Brown indicates, 'if these requirements were set up by speech pathologists they would probably be fairly uniform from one state to another, and would certainly be realistically oriented in terms of the professional job that the public school clinician does. But, would the uniformity established by the 'speech pathologists' necessarily be the type of training the school therapist needs? Would the 'speech pathologists' with clinical experience limited to universities be able to plan an effective set

of requirements for the school therapist?

Taking specific courses in elementary or secondary education, in themselves, may not aid the therapist particularly unless she also has some orientation course such as Methods in Organization and Administration of a Public School Speech and Hearing Therapy Program to pull the isolated areas together. I agree with Brown that the education requirements in many instances may constitute a menace to the proper training of therapists. Not only should students usually have additional courses in clinical speech and hearing, but also courses in public speaking and improvement of the speaking voice. Do we emphasize the speaking skills of the therapist herself?

Now we come to the next paragraph in the Brown Editorial: '. . . all the unfortunate business of required courses in Education arises from the misdefinition of speech and hearing clinicians as *teachers*.' Even though we call the public school speech 'teacher' a 'clinician' or 'therapist,' it appears to me that she should still take carefully selected education courses. Although the 'speech teacher' in Ohio may prefer (and is usually called) 'speech and hearing therapist,' she usually wisely tolerates 'speech teacher.' Since the program in the public schools is still gaining acceptance, why don't we permit 'speech teachers'? Upon the examination of six state department of education bulletins, the term 'speech and hearing therapist' was used four times; 'speech correctionist' and 'speech correction teacher,' were each used once. When state departments and state associations refer to the 'therapists' instead of 'speech correction teacher,' it won't be long before the public accepts them as 'therapists' or 'clinicians.' We prefer 'therapists' in Ohio.

I agree with Brown that the demand of many of the states that the therapist hold a teacher's certificate is the 'most onerous of these non-specialized requirements.' During a recent survey of state certification, I found that 16 out of the 29 states certifying therapists also required an elementary or secondary certificate. Part of the thinking back of the 'regular' certificate is probably the idea that holders of such certificates will have had experience with 'normal' children first. Moreover, some school administrators feel that a 'special teacher' must first have been a 'regular teacher.' I feel that a special curriculum can be developed which meets these requirements, however, without necessitating the therapist's going to school more than four years. Such a curriculum has been worked out in five of the universities in Ohio. A *Special Certificate in Speech and Hearing Therapy* is issued to the student upon completion of the special curriculum. Six other states besides Ohio have some form of special certificate for the therapist.

Although the therapist with a special certificate may have more adequate training, not only in special speech and hearing courses but also in the orientation to the public schools, than the holders of the regular certificates, he may be penalized when he enters a state requiring a 'regular' certificate. Moreover, to obtain adequate training in a specialized field of speech and hearing, the holder of the 'regular' certificate is almost required to take a master's degree or its equivalent. This situation may account for the inadequacy of some of the speech and hearing training of therapists in

states where a 'regular' certificate is required.

For the therapist, who is to work in the public schools, some education courses are essential, it seems to me. I did not think this was true once—I agreed with Dr. Brown in thinking that the therapist worked alone professionally, much as does the nurse or the physician. It is true that 'these other clinical experts are neither required to hold teachers' certificates nor enforced to complete a given number of hours in Education courses.' They don't need the education that the therapist does. The therapist needs to know how the school functions, how the teachers work, how speech can be integrated into the subject matter of the schools, and so on. Say what you will, speech therapy is a 'teaching job,' not only educationally, but re-educationally. We'd better know how to fit into the school system or we won't stay long.

Let me say here—and I wouldn't have said this 10 years ago—the best therapist in the public schools is often the one who *was* a regular classroom teacher a few years before she specialized. She knows how to handle the children in groups; she knows how to work with the teachers; she fits in; she can utilize her teaching skills in therapy situations. I cannot understand how Dr. Brown can make the statement, '. . . that a speech clinician is not a teacher in any reasonable meaning of that term.' One has only to visit well-trained therapists teaching small groups of children in the public schools to recognize that she has much in common with the 'teacher.'

As to the last paragraph, 'It should be one of the major objectives of the ASHA to persuade state departments of education to adopt as their criteria for certification the recently adopted requirements for the Basic Certificates in Speech and Hearing, and to discard any existing additional requirements.' I, for one, could not support this objective. The requirements of the ASHA are excellent and should be a part of every training program. However, the specific type of position which the therapist takes may warrant additional areas of training. I would be afraid of the result of therapists in the public schools *without any* educational background of training or experience. How can we promote the cause of the speech and hearing handicapped school children if we think of ourselves only as 'clinicians' or 'therapists' without any kindred understanding of our relationships with the school as a whole?

We need further consideration of this vital topic. Since so many of our members are in public school work, the training problem and our attitude toward it is an important one. We should be encouraged by the upgrading of certification requirements in some of the states. The United States Office of Education is doing a study on 'Qualifications and Preparation of Teachers of Exceptional Children.' The 'teacher of the speech defective' is included. The fact that 13 states have supervisors of speech or hearing, many of whom are well qualified as therapists, should be encouraging. We should look to them for guidance.

We should thank Dr. Brown for his most stimulating editorial. It may lead us to consider and do something about the improvement and unification of the requirements and training facilities of the therapist who works in the public schools.

Ruth Beckey Irwin
Ohio State University

Book Reviews

HIRSH, IRA J. *The Measurement of Hearing.* New York: McGraw-Hill Book Co., 1952. Pp. 364. $6.00.

Hallowell Davis, in his foreword, says that this book '. . . is written frankly from the point of view of the experimental psychologist, but if it succeeds in bringing this point of view usefully and effectively to the otologist and the audiologist, it will be an important step forward.' Particularly when evaluated in the light of this statement, Hirsh's book is a highly significant contribution.

The book opens with a useful review of the principles underlying psycho-physical measurement. The discussion is brief, but it emphasizes the considerations of special importance in assessing hearing.

The second chapter, the longest one in the book, deals with the nature of the auditory stimulus. There is a concise and helpfully detailed summary of the terms and concepts through which the physicist describes the sounds we hear. This section is followed by a review of key concepts from the field of electricity. Here are catalogued the basic notions needed to understand the general principles in the construction and functioning of modern instruments for exploring audition. The coverage is excellent, and although the treatment is too condensed for the novice, the reader who has some familiarity with electricity will find the section useful in refreshing and extending his ideas.

The third chapter discusses, in general terms, the major electro-acoustical devices used in the measurement of hearing. The technical information is excellent, but the scope of the subject is so great that some readers will feel need for details which are necessarily omitted.

The next seven chapters are particularly valuable. They survey the major aspects of audition. Each chapter outlines the pertinent methods for testing hearing and summarizes the major experimental findings regarding the aspect under discussion. There is continuing cognizance of clinical implications without great stress on clinical methodologies *per se*. The subject matter is treated under the following chapter headings: ***Absolute Threshold for Pure Tones, The Intelligibility of Speech, Auditory Masking and Fatigue, Differential Sensitivity, Loudness and Recruitment, Binaural Hearing and Bone Conduction, and Conditioning in Audiometry***. A final chapter, ***Clinical Audiometry***, gives an overview of clinical methodology in the light of the previous chapters.

The book includes a fine glossary and two useful appendices. One appendix presents in detail the specifications for both pure tone and speech audiometers, while the other lists selected materials for speech audiometry.

The reader who complains that the book lacks specific instructions for administering particular hearing tests is seeking an emphasis which its author did not intend. We have needed an integrated statement of the principles which must underlie the effective testing of hearing in the clinical situation. Hirsh has given us this statement without allowing himself to be distracted by excessive attention to operational routine. The result is a fresh contribution of note.

RAYMOND CARHART.
Northwestern University

FIEDLER, MIRIAM F. *Deaf Children in a Hearing World: Their Education and Adjustment.* New York: The Ronald Press Co., 1952. Pp. 320. $5.00.

To those who spend their days as clinical audiologists charged with the responsibility for determining the specific needs of a succession of infants and young children with all types and degrees of impaired hearing, interpreting these findings to anxious parents, and then counselling them on how best to meet the needs of their particular child, this book comes as a welcome ally. Although it approaches the matter of handling the problem of these children from the point of view of child development, it echoes and re-echoes the basic concepts that have come to underlie modern audiologic guidance. The author uses the word *deaf* in the title as a generic term for children with varying amounts of hearing impair-

Book Reviews is edited by Kenneth Scott Wood, University of Oregon.

ment. The educator and the audiologist may object to this, but it is purely a matter of semantics since the author takes care to explain the use of the term.

The book is an account of the Vassar experiment in the education and training of children with impaired hearing in association with normal hearing children. The study extended over a five-year period, but the book centers around the experiences of 11 children with defective hearing and their parents who attended a four-weeks session in the summer of 1949 at the Vassar Summer Institute for Family and Community Living. Their experiences and the parental reactions, together with comments and interpretation by the staff, provide the core of the book.

It is a thoughtful and dispassionate statement of facts and philosophy. While it does not minimize the special needs of these children, or the seriousness of the problem that faces parents and teachers alike, it does make clear the necessity for a careful evaluation of current ways of meeting these special needs and for thoughtful consideration of the most appropriate educational framework. It should be required reading for educators, special educators, school administrators, psychologists, audiologists and parents.

MIRIAM D. PAULS.
Johns Hopkins Medical Institutions

MORGAN, LUCIA C. *Voice and Diction Drill Book for Students in Speech.* Dubuque, Iowa: William C. Brown Co., 1951. Pp. 66. $1.50.

This drill book is designed primarily for a beginning course in voice and diction. Its stated aim is emphasis on drill with minimum discussion.

The major portion of 41 pages is devoted to voice with sections on voice evaluation, breath control, pitch control, and quality control. Little is given for drill other than lists of poems and some suggestions. The instructor would need to supplement drill work considerably to achieve improvement in voice. Most suggestions given are good with the exception of negative practice for improvement of quality which is irritating to the vocal folds.

The section on diction contains a definition of terms, the IPA, material on regional speech and pronunciation, with exercises for each of the three latter categories.

GEORGIANA M. PEACHER.
Temple University Medical School

RAUBICHECK, LETITIA. *Speech Improvement.* New York: Prentice-Hall, Inc., 1952. Pp. 225. $2.80.

Numerous errors and a provincial viewpoint weaken this manual intended for high school use.

General American usage is disregarded. The symbol [ɜ:] alone is used for *bird* and *word;* but note: 'In some parts of the country, the tongue curls up in the *r* position for the vowel. In other parts, the tongue-tip remains low in the mouth. If you are interested, the curled tongue-tip is most common in the *middle* of America and the low tongue-tip elsewhere.'

British confusions regarding diphthongs and the vowels [i], [ɪ], [e], [ɛ], and others are included. The [a] alone is used for 'ask words.'

These are typical errors, old and new: 'Here [in the larynx] we produce all the sounds of song and speech. . . Voice is a complex sound made up of a low tone, caused by the vibration of the whole length of the band, and also many overtones, or partials, caused by the vibration of the vocal cords *in phase.*' This is still in error if the intended words *in segments* are substituted.

The author says, 'Do not press the [tongue] tip against the gum ridge or you will make a Spanish rather than an English [t].' Again the author writes concerning [s] and [z], 'The air or voice must flow through a narrow groove in the center of the mouth and escape between the upper front teeth directly below the nose.'

JACK C. COTTON.
State University of New York Teachers College, New Paltz

RAAF, GENEVIEVE E. *Games and Jingles for Speech Improvement.* Milwaukee, Wis.: Genevieve E. Raaf, 625 N. 15th St., 1952. (Mimeographed) Pp. 89. $2.50.

This is not an original document. It is mostly a compilation of material from Mother Goose and Shakespeare to Van Riper. The annotated bibliography is adequate.

Games and jingles are presented in four sections for the correction of articulatory faults, stuttering, cerebral palsied, and cleft palate speech. Explanation of these types of speech defects is inadequate and inaccurate, such as 'athetoid' and 'athetosis' for separate types of cerebral palsy.

The material is not well chosen, to wit, the death and funeral of Jenny John for

young children. The section on stuttering treats only the symptom, primarily with the repetition of jingles. I see no need for this book.

CONRAD F. WEDBERG.
California State Department of Education

MULGRAVE, DOROTHY. *Improve Your Speech: Pocket Guide to Speech Practice. 2. Correcting a Lisp.* New York: Dorothy Mulgrave, 250 4th Ave., 1951. Pp. 31. $1.00.

This handy 3 × 5 inch booklet is excellent for the busy person to take to the frequent, short practice periods effective in the transfer of corrected sounds to spontaneous speech. Material is provided for all sibilant sounds, but the major portion is devoted to words and phrases weighted with [s] in all positions and in consonantal combinations.

GEORGIANA M. PEACHER.
Temple University Medical School

FEATHERSTONE, W. B. *Teaching the Slow Learner. (Practical Suggestions for Teaching,* No. 1, Hollis L. Caswell, ed.) New York: Teachers College, Columbia University, 1951. Pp. 118. $.95.

The author discusses realistically and practically 'ways and means of designing and carrying on a curriculum well adjusted to the needs of that large group which, being neither average nor subnormal, has heretofore been largely overlooked in most educational thinking and planning.'

He points out that the distinguishing trait of the slow learner is his 'poor reasoning' or his inferior performance in such matters as 'defining, distinguishing, and analyzing'; he dispenses with such misconceptions about the slow learner as compensation, handmindedness, and an innate tendency toward delinquency; and he calls attention to the similarity between slow and average learners in attributes important in the classroom, such as bluffing, cooperation, obedience, and generosity.

The major part of the book treats the handling of slow learners in school. The author advocates the use of several criteria for locating slow learners: group and individual intelligence tests, previous school record, age-grade progress, and environmental and health factors.

In the discussion of organization, the advantages and disadvantages of separate grouping are evaluated. The conclusion is reached that the important factor is not the type of grouping but the homeroom organization under the 'continued guidance and interest of a single teacher.' Achievement up to levels which may be expected should be the goal in teaching.

The methods of teaching should be clear, specific, and concrete; drills, demonstrations, audio-visual aids, and activities centering around tangible things, places and people should be used. The teaching of reading is given careful consideration. One page 81 we read, 'In most schools, the teacher will usually need to prepare a good deal of supplementary reading material. This is a rather difficult and time-consuming job.' The author is indeed sincere in his conviction that 'ways must be found to fit the school as effectively to the needs of slow learners as to the needs of the more rapid learners.'

The teacher, furthermore, must 'become to some extent a social worker . . . psychological counselor . . . for each pupil as an individual.' He must, however, not overdo his efforts in behalf of any individual child lest that child be labelled teacher's pet.' The author shows himself to be keenly aware of the challenging personal problems which confront the teacher of slow learners.

While this volume does not give, nor pretend to give, all the answers, it does give a clear presentation of the case of the 20 per cent of public school children who all too often endure the schoolroom until compulsory school law no longer compels them to do so.

LOU KENNEDY.
Louisiana State University

MORKOVIN, B. V. AND MOORE, LUCELIA M. *Life-Situation Speech Reading Through the Cooperation of Senses.* Los Angeles: University of Southern California, 1948-1949. (Mimeographed) $2.90.

Twenty or more years ago Stanislavski in his Moscow Art Theatre taught his actors when learning a new role to play out the situation in the play before attempting to learn the lines. By so doing he felt that the actor had a deeper understanding of the role he was playing. When reading the material in Morkovin and Moore one is reminded of the Stanislavski technique as it might be applied to the learning of speech reading. The authors start each block of lessons with what they call a life-situation. The first, for example, is the family dinner party. The teacher and the class discuss and even play out what might take place when an ordinary family gathers for dinner. Following the dis-

cussion a film is presented showing a family who is about to have dinner. The class watches the film and attempts to lipread what each of the characters says. In the lessons that follow, the material in the film is utilized in auditory training, in the development of greater kinaesthetic awareness, and in teaching visual discrimination. Throughout each block of lessons the situation presented in the film at the beginning is the focal point. An attempt is made to teach the person with hearing impairment to use his residual hearing, his kinaesthetic and visual senses cooperatively in a total situation in order to communicate better.

The material contained in this manual was prepared as an accompaniment for a set of 10 Life Situation films, reprints of which are available from the authors. This reviewer has had clinical experience in using this set of films and questions whether it is possible to pull so much from so little and hold the interest of adults. But, it seems sensible to this writer to use the so-called life situation as a point of departure in teaching speech reading and to teach the patient from the very beginning to use his combined senses in communication. This writer feels that the authors have a theoretical approach that appears to be sound, but feels that perhaps too much emphasis is placed on its practical application through the use of the films. People teaching speech reading in adult clinics will find considerable use for this manual whether or not the films are used along with it.

JACQUELINE KEASTER.
State University of Iowa

LARSEN, LAILA L. *Consonant Sound Discrimination: An Album of Records, Manual and Drill Sheets.* Bloomington, Ind.: Indiana Univ. (Distributed by Indiana Univ. Audio-Visual Center), 1950. $10.

The Larsen Sound Discrimination Test was the result of experiments and tests on several thousand hard of hearing war casualties. The test words were subsequently used for training the patients to restore their ability in discriminating between consonants. In order to standardize the test and thereby control the factor of uniform loudness between words, the test has been revised and recorded on unbreakable Flex-Vinylite discs.

The *Consonant Sound Discrimination* album contains three records, and is accompanied by a manual and three pads of supplementary drill forms. The test record presents at approximately equal loudness 160 words, each of which represents one of a pair of one-syllable words such as *few-chew, boast-most, lean-leave,* etc. It also presents five words to test discrimination of word endings such as *stored, coughed, started.* These paired sounds were selected because they were missed most often by hard of hearing veterans who participated in the research. On the test sheet the words are arranged in boxes of five pairs. Each box is numbered and shows the two sounds to be discriminated. The listener is instructed to run a line through the words that are heard. The voice announces the box number and the sounds to be tested before each group of five words.

Two other records present all of the 320 paired words and the 15 words paired for word endings. These records are used by the listeners to improve their word recognition power. The manual offers suggestions on how to listen for differences and to get the feeling for each word. For additional drill, the listener is told to have someone pronounce all the words, using for each pair a pattern, such as one word of a pair pronounced twice and the other word once, varying the pattern from pair to pair.

The Manual not only gives the history of the development of Larsen Consonant Sound Discrimination test but outlines training procedures. It has additional sections on 'How to help the hard of hearing use the hearing aid more effectively,' which passes on the results of successful work at Deshon Hospital during the war; 'How to correlate the record with lipreading,' which gives helpful hints regarding the use of the hearing aid for sounds that look alike or are invisible, and regarding the use of lipreading for consonants that sound alike but are visibly different; 'How to use the supplementary auditory training materials;' and a 'Chart of Difficulty and Order of Improvement of Consonant Sounds.'

The Appendix of the Manual contains the form for the sound discrimination test and drill lists of words and sentences, aimed at improving discrimination of vowels, word endings and beginnings of words. The author suggests that these drills may also be used to measure the listener's progress in consonant discrimination, and help to point out which sounds are hardest to distinguish and hence need more drill work.

The *Consonant Sound Discrimination* album and drills are a most useful addition to the materials that have been offered to audiologists in the past few years. They are systematically and scientifically prepared and make it unnecessary for a therapist to make up his own lists. The author has been most generous in permitting the mimeographing of the test and drill sheets, pro-

vided they are used for therapeutic purposes only. No mention is made of the loudness at which the test words are presented to the listener, although it is presumed that a comfortable level should be used with receivers or free field, and that the subsequent tests be made at the same level in order accurately to determine the gain. Although the author states that the speed of presenting the test words was worked out and found to be satisfactory for young veterans, experience of several audiologists reveals that older persons may be confused by the speed and miss one or two succeeding words in hunting for the correct word.

The scratch noise on the records is much louder than the test records that contain the spondee and PB lists that have been distributed by others. The records become more scratchy with use. Only a small number of listeners, however, have commented on the scratchy sound. Since the test record is the most important of the three, it is advisable to use it sparingly in order to insure adequate test results. Additional records should be replaced as they become unusable or drill materials may be presented orally. A test-score card may be made by making perforations on a heavy cardboard to expose the words that are correctly pronounced in the test.

WARREN H. GARDNER.
Western Reserve University
Cleveland Hearing and Speech Center

BRIN, JOSEPH G. *Applied Semantics: Practical Aids in Communication.* Boston: Bruce Humphries, Inc., 1951. Pp. 189. $3.00.

Brander Matthews once stated: 'The task of the writer (or speaker) is to make the path easy for the reader (or listener). To grade the right-of-way so that the train of thought, heavy or light as the load may be, can move on its course without the annoying application of brakes . . . .'

Brin's modest book, *Applied Semantics*, certainly contributes generously to the realization of this goal. The brevity, simplicity, and clarity of his analysis of words, verbal ornamentation, vocabulary building, dictionaries and their use, and people's intentional deceptions through the use of language, are especially well developed for the novice who wishes to be informed.

His approach to semantics is, fortunately, that of a realist. He is not expecting 'Eutopia' through a knowledge of semantics. His remarks are addressed to those who wish to write and speak with greater accuracy and who seek to protect themselves against those forces in our society which intentionally misrepresent the 'fact-world.'

The author's exercises and selected materials for study are nicely designed to call the reader's attention to the practical implications of language in human affairs.

This book, with minor revisions and with a supplementary handbook of appropriate exercises, would be of inestimable value to high school juniors and seniors who are just beginning to understand the meaning of language. Perhaps our secondary school administrators might be persuaded one day to fit such a unit of study into their social studies program.

W. A. DAHLBERG.
University of Oregon

BERELSON, BERNARD. *Content Analysis in Communication Research.* Glencoe, Ill., The Free Press, 1952. Pp. 220. $4.00.

This small book, packed with classifications and evaluations of what has been happening among the explorers of communication content, should be an invaluable introduction to newcomers.

It is not a 'how to do it,' but a 'what others have done' survey of the approaches and procedures of investigators interested in questions like these: How can one talk about the content of magazines, movies, interviews, etc., in precise and measurable rather than vague and impressionistic terms? What uniformities, consistencies, and variations can be described in 'what is said in communications of various kinds'? The effort of the content analysts is to develop a method of summary description so as to reveal what might otherwise only be guessed at or never realized.

The absence of an index is a first class publishing mistake. The bibliography ends with 1950, and though idiosyncratically arranged, includes titles concerned with such questions as 'How are minority ethnic groups treated in short stories in popular magazines? What are the dominant images in Shakespeare's plays? How is the writer's personality structure reflected in what he writes'?

Researchers seeking to describe what those with speech and hearing disorders say or write might find suggestions a-plenty in this overview of the range, values, and shortcomings in the analytical methods so far devised. My graduate students are not likely to avoid hearing me 'on Berelson' in spite of the fact that he takes so little cognizance of relevant work reported in this and other speech journals.

IRVING J. LEE.
Northwestern University

BUHLER, CHARLOTTE, SMITTER, FAITH, RICHARDSON, SYBIL AND BRADSHAW, FRANKLYN. *Childhood Problems and the Teacher.* New York: Henry Holt and Co., 1952. Pp. 372. $3.75.

This work gives insight into the dynamics of behavior problems which teachers may encounter, case examples of what help teachers may offer in various circumstances, and descriptions of the type of problem with which the teacher needs specialized assistance. One chapter describes what the remedial teacher can do for the child who does not learn to read.

Psychological Problems of Cerebral Palsy: A Symposium. Chicago: The National Society for Crippled Children and Adults, Inc., 1952. Pp. 79. $1.25.

This is a transcript of a symposium sponsored by the National Society for Crippled Children and Adults and the American Psychological Association, Division of School Psychologists. The following topics were discussed: Anatomical Facts Related to Spasticity; Psychological Appraisal of Children with Cerebral Palsy; Group Counselling with Parents; Distinction between Neurophrenia and Cerebral Palsy; and Educational and Vocational Planning for the Cerebral Palsied Child. These topics were discussed by the following panel members: Douglas Buchanan, Charles R. Strother, Harry V. Bice, Edgar A. Doll, and T. Ernest Newland. The following served as discussants: Mrs. Cleon Truitt, Phyllis F. Bartelme, Isidor W. Scherer, Meyer A. Perlstein, and Ann E. Heilman.

BERNARD, HAROLD W. *Mental Hygiene for Classroom Teachers.* New York: McGraw-Hill Book Co., 1952. Pp. 472. $4.75.

Part of this book is devoted to suggestions for improving the mental health of the teacher, but its main purpose is to give the teacher a program to help meet mental health problems of pupils in the classroom. Five chapters are given to *Basic Considerations*, seven to *Mental Hygiene in the Classroom*, four to *Special Approaches to Mental Health*, and three to *The Teacher's Mental Health*. The author discusses such topics as questionable school practices, the use of drama and play, art as an approach to mental health, teaching methods and pupil adjustment, and special needs of adolescents.

Current Publications

ALBERT, ARTHUR L. *The Electrical Fundamentals of Communication.* (2nd ed.) New York: McGraw-Hill Book Co., 1952. Pp. 540. $7.00.

ARCHER, W. HARRY. *A Manual of Oral Surgery.* Philadelphia: W. B. Saunders Co., 1952. Pp. 643. $15.00.

Areas of Research Interest in the Language Arts. Chicago: National Council of Teachers of English, 1952. Pp. 39. $.50.

ASCH, SOLOMON E. *Social Psychology.* New York: Prentice-Hall, Inc., 1952. Pp. 662. $5.50.

ASHBY, W. ROSS. *Design for a Brain.* New York: John Wiley and Sons, 1952. Pp. 268. $6.00.

BAKER, RACHEL M. *Sigmund Freud.* New York: Julian Messner, Inc., 1952. Pp. 201. $2.75.

BENDER, JAMES F. *Victory Over Fear.* New York: Coward-McCann, Inc., 1952. Pp. 247. $2.95.

BENDER, MORRIS B. *Disorders of Perception.* (American Lectures in Neurology, No. 120) Springfield, Ill.: Charles C. Thomas, 1952. Pp. 120. $3.00.

BERGLER, EDMUND. *The Superego: Unconscious Conscience.* New York: Grune and Stratton, 1952. Pp. 367. $6.75.

BERNARD, HAROLD W. *Mental Hygiene for the Classroom Teacher.* New York: McGraw-Hill Book Co., 1952. Pp. 485. $4.75.

BETHELL, JETHRO. *German Pronunciation and Phonology.* New York: British Book Centre, 1952. Pp. 534. $12.50.

BRENNAN, ROBERT E. *General Psychology: A Study of Man Based on St. Thomas Acquinas.* (Rev. ed.) New York: The Macmillan Co., 1952. Pp. 556. $5.50.

CRAWFORD, WOODRUFF L. AND OTHERS. *What are we Doing for the Superior Child?* (Reviewing Stand, Vol. 18, No. 15) Evanston, Ill.: Northwestern University Press, 1952. Pp. 11. $.10.

DAVIDSON, HENRY A. *Forensic Psychiatry.* New York: Ronald Press Co., 1952. Pp. 406. $8.00.

DEESE, JAMES. *The Psychology of Learning.* New York: McGraw-Hill Book Co., 1952. Pp. 407. $5.50.

DE GRAZIA, SEBASTIAN. *Errors of Psychotherapy.* Garden City, N. Y.: Doubleday and Co., 1952. Pp. 288. $3.00.

DIAMOND, MOSES. *Dental Anatomy: Including Anatomy of the Head and Neck.* (3rd ed.) New York: The Macmillan Book Co., 1952. Pp. 483. $15.00.

FIEDLER, MIRIAM F. *Deaf Children in a Hearing World: Their Education and Adjustment.* New York: The Ronald Press Co., 1952. Pp. 320. $5.00.

FRANKEL, GEORGE W. *Let's Hear It! Confessions of a Hard of Hearing Doctor.* New York: Stratford House, 1952. Pp. 63. $1.00.

GORLOW, LEON AND OTHERS. *The Nature of Nondirective Group Psychotherapy: An Experimental Investigation.* New York: Columbia University, Bureau of Publications, 1952. Pp. 151. $3.25.

GRANT, J. C. BOILEAU. *A Method of Anatomy.* (5th ed.) Baltimore: Williams and Wilkins Co., 1952. Pp. 870. $7.00.

HORKHEIMER, PATRICIA A. AND OTHERS, eds. *Elementary Teachers Guide to Free Curriculum Materials.* (9th ed.) Randolph, Wis.: Educators Progress Service, 1952. Pp. 351. $4.50.

INGERSLER, FRITZ. *Acoustics in Modern Building Practice.* New York: British Book Centre, 1952. Pp. 290. $7.50.

JOHNSON, WENDELL, DARLEY, FREDERIC L. AND SPRIESTERSBACH, D. C. *Diagnostic Manual in Speech Correction: A Professional Training Workbook.* New York: Harper and Brothers, 1952. Pp. 221. $2.50.

LE CRON, LESLIE M., ed. *Expreimental Hypnosis: A Symposium of Articles on Research by Many of the World's Leading Authorities.* New York: Macmillan Co., 1952. Pp. 501. $6.00.

LEVINSON, ABRAHAM. *The Mentally Retarded Child: A Guide for Parents.* New York: John Day Co., 1952. Pp. 190. $2.75.

LINDSLEY, CHARLES F. *Radio and Television Communication.* New York: McGraw-Hill Book Co., 1952. Pp. 504. $5.50.

MEERLOO, JOOST A. M. *Conversation and Communication: A Psychological Inquiry into Language and Human Relations.* New York: International University Press, 1952. Pp. 255. $4.00.

MOORE, CLYDE B. AND COLE, WILLIAM E. *Sociology in Educational Practice.* Boston: Houghton Mifflin Co., 1952. Pp. 448. $4.00.

RAAF, GENEVIEVE E. *Games and Jingles for Speech Improvement.* (Mimeographed) Milwaukee, Wis.: Genevieve E. Raaf, 625 N. 15th St., 1952. Pp. 89. $2.50.

RIDLEY, GEOFFREY N. *Your Brain and You.* New York: John de Graff Co., 1952. Pp. 223. $4.00.

RUBIN, HERMAN H. *Glands, Sex, and Personality.* New York: Wilfred Funk, Inc., 1952. Pp. 215. $2.95.

SAFIER, DANIEL E. *The Listening Book.* Caldwell, Idaho: The Caxton Printers, 1952. Pp. 155. $4.00.

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SHARPE, WILLIAM. *Brain Surgeon. The Autobiography of William Sharpe.* New York: Viking Press, 1952. Pp. 287. $3.75.

SLAVSON, SAMUEL R. *Child Psychotherapy.* New York: Columbia University Press, 1952. Pp. 345. $4.50.

VAUGHAN, WAYLAND F. *Personal and Social Adjustment: Foundations of Mental Health.* New York: Odyssey Press, 1952. Pp. 592. $4.25.

VERNIER, CLAIRE M. *Projective Test Productions.* (Vol. 1, *Projective Drawings*) New York: Grune and Stratton Co. Pp. 168. $6.00.

WECHSLER, DAVID. *Range of Human Capacities.* (2nd ed.) Baltimore: Williams and Wilkins Co., 1952. Pp. 190. $4.00.

WEINBERG, S. KIRSON. *Society and Personality Disorders.* New York: Prentice-Hall, Inc., 1952. Pp. 544. $5.75.

WILSON, EDGAR B., JR. *An Introduction to Scientific Research.* New York: McGraw-Hill Book Co., 1952. Pp. 388. $6.00.

WITMER, HELEN L. AND KOTINSKY, RUTH. *Personality in the Making: The Fact-finding Report of the Midcentury White House Conference on Children and Youth.* New York: Harper and Brothers, 1952. Pp. 472. $4.50.

WOODGER, JOSEPH H. *Biology and Language: An Introduction to the Methodology of the Biological Sciences Including Medicine.* New York: Cambridge University Press, 1952. Pp. 377. $8.00.

Abstracts

Calif. J. elem. Educ., 20(4), 1952, entire issue.

The May, 1952, issue of the *California Journal of Elementary Education* is devoted to considerations of the education of exceptional children. The following topics are discussed: Johnny Goes from Regular to Special Class; Education for the Hard of Hearing; Public Schools and the Education of Deaf Children; Public Schools and the Needs of Visually Handicapped Children; A Parent Discussion of the Education of Cerebral Palsied Children; School Program for Cerebral Palsied Children; Speech Correction in the Public Schools; and Studies in the Education of Gifted Children. (*C.G.W.*)

Quick facts on disc recorders. *Audio Rec.*, 8, 1952, 3-12, 407.

Illustrated listings of available tape and disc recorders with manufacturers' specifications and prices. (*A.J.B.*)

Scientific American, 187(3), 1952, entire issue.

The entire September issue is devoted to a series of articles dealing with automatic control. An introduction by philosopher Ernest Nagel surveys the new ideas which engineers develop in the succeeding articles. The social implications and potentials for human welfare of the coming age of automatism are evaluated. Arnold Tustin, professor of electrical engineering at University of Birmingham, outlines the basic theory of feedback as a fundamental principle that underlies all self-regulating systems including life processes and 'tides of human affairs' as well as machines. Gordon S. Brown and Donald P. Campbell of M. I. T. electrical engineering department discuss specific applications of feedback mechanisms describing existing systems and possible future developments. Eugene Ayres, chemist with Gulf Research and Development Company, describes a modern petroleum cracking plant which has about 150 automatic controls. The feedback control of an experimental milling machine for shaping metal is described by William Pease, of M. I. T.'s electrical engineering department. Louis N. Ridenour, physicist with International Telemeter Corporation, discusses the role of the computer and describes both the analogue and digital types. An analysis of the nature of information and its relation to feedback in the light of the new theory of communication is presented by Gilbert W. King, physical chemist associated with Arthur D. Little, Inc. In the final article Wassily Leontief, an economist, asks if automatization of industry will displace labor, cause unemployment and lead to human misery. He concludes that such a danger does exist but is not inevitable. (*J.M.*)

CHERRY, E. C. The communication of information. *Amer. Scient.*, 40, 1952, 640-664, 724-725.

The author, Reader in Telecommunication at University of London, presents a history of mathematical information theory and its development into cybernetics. Wiener's and Rosenbleuth's work in relation to a common notation of the nervous system and to binary computing machines is discussed. The analogy is extended to the brain and its processes. The discussion of communications engineering includes a consideration of sense-substitutes; codes and ciphers, and the 'electric brain.' A 49-item bibliography is included. (*J.M.*)

Abstracts is edited by Jack Matthews, University of Pittsburgh, assisted by the following committee: Asa J. Berlin, Pennsylvania State College; Virginia B. Carroll, Minneapolis Veterans Hospital; Charles F. Diehl, University of Kentucky; James V. Frick, Pennsylvania State College; Lester L. Hale, University of Florida; Frank M. Lassman, University of Minnesota; Georgiana M. Peacher, Temple University; Sylvia O. Richardson, San Diego, Calif.; George H. Shames, University of Pittsburgh; D. C. Spriestersbach, State University of Iowa; Jesse J. Villarreal, University of Texas; Charlotte G. Wells, University of Missouri. The committee systematically reviews 203 journals for articles of interest to members of ASHA.

LEVINE, M. G. AND KABAT, H. Relaxation of spasticity by electrical stimulation of antagonistic muscles. *Arch. phys. Med.*, 33, 1952, 668-673.

Discrepancies in existing definitions of spasticity indicate that present knowledge of the subject is still inadequate as are the number of procedures employed in its treatment. The authors have developed a procedure involving faradic stimulation of muscles antagonistic to those showing spasticity. The resulting relaxation is felt to be due to reciprocal innervation. (*S.O.R.*)

PODVINEC, S. The physiology and pathology of the soft palate. *J. Laryng.*, 66, 1952, 452-461.

The mechanism of the soft palate, especially the muscle slings, and the alterations of this mechanism in the variety of pathologies are described. (*F.M.L.*)

WILSON, J. L. AND BRIZZOLARA, L. G. Carcinoma of the tongue. *Ann. Surg.*, 136, 1952, 964-970.

A series of 54 cases of tongue cancer treated more than five years ago is reported. When the lesion was confined to the tongue (Stage I), the five-year survival was 57 per cent (12 out of 21 cases). When tissue adjacent to the tongue was invaded, but lymph nodes not involved (Stage II), the five-year survival was 17 per cent (one out of 6 cases). When lymph nodes were involved (Stage III), the five-year survival was 4 per cent (one out of 23 cases). The present plan of surgical management is described. (*G.M.P.*)

HODGE, G. E. AND GROSSMAN, A. Laryngeal paralysis with a review of its treatment. *Canad. med. Ass. J.*, 65, 1951, 251-257.

An excellent review of anatomical and surgical investigations of the larynx and their relationship to the over-all picture of laryngeal paralysis with particular emphasis on cases which may occur following thyroid surgery. The role and importance of speech therapy in relation to these cases is stressed. (*S.O.R.*)

SMITH, S. AND TURTON, E. C. Restoration of speech in severe aphasia by intravenous and oral priscol. *Brit. med. J.*, 4736, 1951, 891-892.

The authors present a case of a 55-year-old patient who showed organic brain change with aphasia due to cerebral arteriosclerosis, but without evidence of focal lesion. Upon receipt of priscol (Tolazoline) the patient showed rapid improvement in speech and writing, indicating that cerebral function had been functionally depressed but not destroyed. Treatment was not continued since the patient became tolerant to the drug. When the drug was discontinued, the patient slowly returned to his former state of motor aphasia and agraphia. (*S.O.R.*)

GOLDSTEIN, K. The effect of brain damage on the personality. *Psychiatry*, 15, 1952, 245-260.

The behavior of the brain-damaged patient is discussed with reference to memory and attention, emotional responses, pleasure and joy, friendship and love, witticism, changes in language, catastrophic conditions, anxiety and protective mechanisms. The author suggests that the behavior can be best understood in terms of the patients' impairment of their abstract capacity. (*D.C.S.*)

CRITCHLEY, M. Articulatory defects in aphasia. *J. Laryng.*, 66, 1952, 1-17.

Literature, theory, and clinical material are reviewed to show the nature and variability of articulatory disorders in the aphasic patient. (*F.M.L.*)

CLOAKE, P. Some aspects of cortical function. *Brain*, 75, 1952, 273-291.

The author discusses differences between animal and human cortical ablation and stimulation. He postulates (1) emotion is a reaction to bodily changes that occur after the perception of a fact causing excitation; (2) if damage occurs early in the development of either hemisphere, the non-damaged hemisphere will adapt; and (3) levels of learning achieved by man are based on state of consciousness controlled by brain stem, hypothalamic, and thalamic mechanisms, which affect the cortex as a whole in the synchronization of unconsciousness and the differentiation of conscious activity. (*V.B.C.*)

GREWEL, F. Acalculia. *Brain*, 75, 1952, 397-407.

The author discusses calculation from a cultural and semantic frame of reference. He concludes acalculia is not a function

which can be specifically localized, but one which includes both visual and ideational factors. (*V.B.C.*)

McFie, J. and Piercy, M. Intellectual impairment with localized cerebral lesions. *Brain*, 75, 1952, 292-311.

Fifty-eight patients with various localized cerebral lesions were tested for impairment in abstraction, retention, and learning. Impairment of retention and learning were related to size rather than location of the lesion. Verbal, numerical, and spatial thinking are selectively impaired by lesions in different locations. (*V.B.C.*)

Humphrey, M. and Zangwill, O. Effects of a right-sided occipito-parietal brain injury. *Brain*, 75, 1952, 312-324.

The authors present similarities between findings of patients with right hemisphere brain injury and a case with a left hemisphere lesion. They cite the absence of agraphia in the patient as a significant major difference. The patient is believed to have recovered more rapidly and fully than is usually observed in left hemisphere lesions. (*V.B.C.*)

Brickner, R. M. and Barnum, A. S. Thought as a form of sensation, and agnosis of thought. *Arch. Neurol. Psychiat.*, 68, 1952, 466-474.

The authors postulate the existence of a neurointellectual system similar to the neuromotor and neurosensory systems, which results in an idea when stimulated. They classify disturbances of the thought processes as (1) thought agnosis, which they define as 'an inability to interpret correctly those units of thought which reach consciousness,' and (2) irreminiscence of thought, defined as 'an inability to bring to consciousness a thought which is nonetheless present.' (*V.B.C.*)

Dunbar, F. Symbiosis of parent and child. *Amer. J. Orthopsychiat.*, 22, 1952, 809-824.

This paper discusses the child-parent relationship in respect to the following: (1) symbiosis versus parasitism; (2) the fundamental principles for symbiotic living of the family; (3) some of the major characteristics of infant, child, adolescent, and adult which make them essentially different organismal (instar) entities; (4) types of physical and psychic dysfunction resulting from defective symbiosis; and (5) practical suggestions useful in preventing disease or disaster in individuals and societies (*G.M.P.*)

Moustakas, C. and Makowsky, G. Client-centered therapy with parents. *J. consult. Psychol.*, 16, 1952, 338-343.

Results obtained from modified nondirective parent counseling are presented. Transcribed interviews are used to illustrate the shift in the role of the therapist to a more active, participating one. (*V.B.C.*)

Milman, D. Group therapy with parents: an approach to the rehabilitation of physically disabled children. *J. Pediat.*, 41, 1952, 113-116.

Group therapy, under the direction or moderation of a pediatric psychiatrist, was undertaken with the parents of children with disability in the area of locomotion, some also having visual, auditory or speech disorders and varying degrees of mental retardation. The objectives were to explore parental attitudes and to discover parental defense mechanisms. Chief therapeutic aids were found to be: (1) to minimize individual feelings of isolation and difference; (2) release of parental anxiety; (3) to acquaint parents with the scope and details of the rehabilitation program; and (4) to help parents achieve a realistic and objective understanding of child's present status and future expectations. It was felt that continued attention to this type of treatment is warranted. (*S.O.R.*)

Miller, E. and Rosenfeld, G. B. Psychological evaluation of children with cerebral palsy and its implications in treatment. *J. Pediat.*, 41, 1952, 613-621.

The intelligence distribution of 330 children with cerebral palsy was studied over a five-year period and showed 75% of these children to be below average (IQ 90), 50% to have IQ below 70. No relationship was found between type of cerebral palsy and intelligence distribution. Of the specific disabilities, 40% of the athetoids and 44% spastics showed visuomotor disturbances. The authors stress the necessity of fitting the treatment to the psychologic as well as the neuromuscular status of the individual child. (*S.O.R.*)

SEWELL, W. AND MUSSEN, P. The effects of feeding, weaning, and scheduling procedures on childhood adjustment and the formation of oral symptoms. *Child Develpm.*, 23, 1952, 185-191.

An attempt was made to relate three aspects of feeding behavior (breast or bottle feeding, demand or regular schedule, and abrupt or gradual weaning) to a number of symptoms (nailbiting, stuttering, slowness in learning to talk, etc.) indicative of conflicts around 'oral-erotic impulses' and to other measures of adjustment or maladjustment. The subjects were 162 five- and six-year-old rural children. Data on feeding behavior and some behavioral manifestations of general personality adjustment were derived from intensive interviews with their mothers. Results on the California Test of Personality and teachers' ratings gave further information about personal and social adjustment. There is no evidence from this study of any relationship between gratification or non-gratification in any of these three aspects of the feeding process and personal and social adjustment. (*J.V.F.*)

DICARLO, L. AND DOLPHIN, J. Social adjustment and personality development of deaf children: a review of literature. *J. except. Child.*, 18(4), 1952, 111-118, 128.

While most of the research tends to verify that deafness does impose certain personality changes and limitations, most of this research has failed 'to equate the semantic dynamics involved, does not control the groups in terms of language and other variables, and fails to utilize standardized measurement criteria.' There is also a need for a 'clearer insight into the nature of deafness and its relationship to individual growth.' (*J.V.F.*)

MANOLAKES, G. AND SHELDON, W. D. A comparison of the Grace Arthur, revised form II, and the Stanford-Binet, revised, form L. *Educ. psychol. Measmt*, 12, 1952, 105-108.

In a study of 217 children with reading problems, Grades 1-12, from eight school systems in New York state, it was found that Grace Arthur test scores were usually lower than Stanford-Binet test scores. Some large discrepancies were noted, and in 65 per cent of the cases, scores between the two instruments varied by more than 10 points. Caution in comparison of scores by these two widely-used psychological tests is indicated. (*J.J.V.*)

TURNBULL, W. W. Socio-economic status and predictive test scores. *Canad. J. Psychol.*, 5, 1951, 145-149.

Using the controversy over the influence of socio-economic status on intelligence test scores as an example, the author points out that such problems can be avoided by 'defining in behavioral terms the criterion to be predicted. Once this has been done the suitability of any proposed predictive test is readily determined. One merely correlates the test scores with the criterion measure.' (*D.C.S.*)

The Nervous Child, 9 (1), 1951, is devoted to 'Problems of Speech Comprehension.' The following articles are included: E. Froeschels, What is hearing; H. H. Beebe, Testing the hearing of young children; A. Jellinek, Understanding of speech; D. A. Weiss, Speech in retarded children; S. Kastein, The different groups of disturbances of understanding language in children; L. Kleinfeld, Otologic aspects of speech comprehension; S. S. Hawk, The blind child of preschool age and his speech; C. V. Hudgins, Problems of speech comprehension in deaf children; J. A. Carrell and J. L. Bangs, Disorders of speech comprehension associated with idiopathic language retardation; A. Jellinek, Education of hard of hearing children; J. A. Hoffman, Training of children with aphasic understanding. Single copies of this issue may be obtained for $2.00 from Child Care Publications, 30 West 58th Street, New York City. (*L.L.H.*)

BEASLEY, J. Dynamics of behavior as a frame of reference in speech therapy. *Stb. Speech J.*, 18, 1952, 13-19.

The speech therapist needs to view speech problems in relation to deeper lying problems that produce the symptoms, not just from the standpoint of the symptoms themselves. Since speech represents one index of the child's whole functional organization, efforts in therapy should be directed to bringing about changes in that functional organization instead of being restricted to the mechanics of speech production only. (*C.G.W.*)

WELLS, C. Factors that influence language growth: The child's equipment for lan-

guage growth. *Elem. Engl.*, 29, 1952, 348-355.

In this first article of a series on factors that influence language growth, Dr. Wells considers the factors within the child himself that enable him to acquire, retain, and improve language skills. The article includes a bibliography of 23 items. (*C.G.W.*)

McCarthy, D. Factors that influence language growth: Home influences. *Elem. Engl.*, 29, 1952, 421-428, 440.

In this second article of a series on factors that influence language growth, Dr. McCarthy considers the individual differences that are apparent in the language of children entering school, citing several influences that have led to the differences often noted. She stresses the need for a normal environment and for understanding of the language disabilities often noted in children. The article includes a bibliography of 33 items. (*C.G.W.*)

Curry, E. T. Analysis of hearing loss patterns in a rural Illinois school system: A comparison of spring and fall audiometric thresholds. *Ann. Otol., etc., St Louis*, 61, 1952, 398-394.

Comparison of spring and fall audiometric thresholds of rural Illinois 5th, 7th and 8th grade children showed the following: (1) Seventy-eight per cent of impaired thresholds improved significantly in fall test; (2) Girls generally improved more than boys; (3) Frequencies up to 1024 tended to improve more than frequencies above 1024. (*F.M.L.*)

Wishart, D. E. S. A critique of present day methods of hearing-testing. *Laryngoscope*, 62, 1952, 1045-1068.

McGill University's Birkett lecturer warns that otologists are being 'squeezed out' by audiologists, are relinquishing testing of children to audiologists, and that 'elaborate tests or batteries of tests' are 'primarily of research interest' and lack clinical value. He considers monitored live-voice free-field testing of children a 'delusion.' Testing facilities should be in the ENT suite and the trained otologist should test his own patient. Children's tests, especially 'Peep-Show,' are elaborated. Recorded tests are favored and extensive argument and defense for WE '4' type fading numbers recording are given. (*F.M.L.*)

Wheeler, L. J. and Dickson, E. D. D. The determination of the threshold of hearing. *J. Laryng.*, 66, 1952, 379-395.

The two ears of 514 'normal' males, ages 18-23, were tested for pure tone thresholds in a sound-proofed booth, with earphone pressure on ear kept constant, temperature controlled, and 2 db attenuation used. Tables of absolute values for the thresholds of seven frequencies are given. (*F.M.L.*)

Marshall, T. A. Reasons for loss of hearing. *Nat. Hearing Aid J.*, 4(6), 1951, 4-7, 21.

Some common causes of hearing loss are presented in popular style for hearing aid dealers. Suggestions are included for hard of hearing individuals to overcome their handicap. (*L.G.D.*)

Dix, M. R. and Hallpike, C. S. Further observations upon the diagnosis of deafness in young children. *Brit. med. J.*, 4752, 1952, 235-244.

In 1947 the authors described their peep-show technique of pure tone audiometry, by which method they were able to test children as young as two years. The present account gives a detailed report of the mechanical improvements in the apparatus, describes the difficulties encountered and their methods for overcoming them, and gives the results of their follow-up on 40 of the 350 children tested. Educational recommendations were made on 260 of the children tested on the basis of the pure tone audiometric findings. The validity of the findings and educational recommendations based thereon was investigated in the course of the follow-up on 40 of the children, the results of which are described and discussed. Consideration is also given to the relationship between the pure tone audiogram and hearing capacity for the spoken voice. (*S.O.R.*)

Watson, D. Labyrinthitis. *J. Laryng.*, 66, 1952, 247-252.

Use of labyrinthine tests, turning and caloric, is considered the frequent direct cause of cases of induced diffuse purulent labyrinthitis in chronic otitic suppuration and the reason for translabyrinthine drainage for the subsequent meningitis—and death of patient. (*F.M.L.*)

Bulletin No. 516. *Nat. Hearing Aid J.*, 6, 1952, 10, 12, 26.

Editorial section contains two letters addressed to Dr. Astin, National Bureau of

Standards, highly critical of NBS Circular 516, 'Selection of Hearing Aids,' and demanding withdrawal from circulation until revision. (*F.M.L.*)

FRANKE, E. K., VON GIERKE, H. E., GROSSMAN, F. M. AND VON WITTERN, W. W. The jaw motions relative to the skull and their influence on hearing by bone conduction. *J. acoust. Soc. Amer.*, 24, 1952, 142-146.

Opening and closing the mouth increases sound pressure produced by bone conduction in the closed auditory meatus by as much as 6 to 10 db between 40 cps and 700 cps. This is explained by measurement and calculus as lower jaw vibrations. (*F.M.L.*)

GERRARD, J. Nuclear jaundice and deafness. *J. Laryng.*, 66, 1952, 39-46.

Thirty-three children of 360 British schools for the deaf were found to have had neonatal jaundice. Cochlear nuclei pathology is suggested, by study of two autopsy cases and of literature indications, as cause for nerve deafness. (*F.M.L.*)

ALEXANDER, I. AND GITHLER, F. Histological examination of cochlear structure following exposure to jet engine noise. *J. comp. physiol. Psychol.*, 44, 1951, 513-524.

Histological evaluation on 51 guinea pig ears within 2 days, 6 to 8 days, and 20 to 22 days after exposure to jet engine noise (140 db for the frequency range 25 to 7500 cps) reveals that injury is confined almost exclusively to the organ of Corti with no middle-ear destruction. Most consistent and devastating effect appears in the second turn of the cochlea. Greatest damage inflicted upon the ears occurs in the 0 to 2 day group, and a partial and progressive recovery follows. The authors feel that the most striking feature of the study is that cochlear structures may have the ability to repair themselves. (*C.F.D.*)

SENTURIA, B. H. Airplane noise and auditory threshold. *Ann. Otol., etc., St Louis*, 61, 1952, 331-349.

Pure tone audiometric thresholds were obtained on 54 subjects prior to pilot training and after each training phase: primary, basic, advanced. Most subjects showed temporary hearing losses after each phase involving frequencies 1024 to 5792. Recovery was delayed for frequencies 2896 to 5792 cps. Losses were completely recovered following 24 hours freedom from airplane noise. (*F.M.L.*)

HIRSH, I. J. AND WARD, W. D. Recovery of the auditory threshold after strong acoustic stimulation. *J. acoust. Soc. Amer.*, 24, 1952, 131-141.

The pattern of recovery to normal threshold after the auditory threshold has been raised by intense stimulation was studied. A series of 4 clicks was produced every 3 seconds with each successive click having relative energies of 0, 3, 6, and 9 db. The listener reported the number of clicks detected by selecting a button on a voting board which activated an Esterline-Angus recorder.

After separate stimulation by 125, 250, and 500 cps at 120 db SPL for three minutes, the four ears studied showed an initial rapid recovery to normal threshold for clicks at about one minute after cessation of the fatiguing tone. A second rise in threshold then followed reaching a maximum about two minutes after stimulation. This diphasic recovery curve, with its characteristic bounce, was found when the exposure involved sound pressure levels between 100 and 120 db and durations of several minutes.

A Bekesy audiometer was modified to study the recovery of threshold for pure tones and bands of noise. The same diphasic recovery pattern was found for white noise, for 250 mel bands of white noise, and for pure tones at half-octave intervals.

When white noise and frequencies above 500 cps were used as the fatiguing stimuli, the same recovery curve resulted. The 'bounce' was most pronounced for bands between 1000 and 5000 cps and for frequencies between 2000 and 5000 cps. (*F.M.L.*)

MINTZ, F. AND TYZZLER, F. G. A loudness chart for octave band data on complex sounds. *J. acoust. Soc. Amer.*, 24, 1952, 80-82.

A simplified procedure for determining the loudness of sounds is described. The principles of the equivalent-tone method previously described by Beranek, Marshall, Cudworth, and Peterson are applied to octave bands. The conversion of sound pressure levels to loudness levels is facilitated by use of contours of equal pressure level in octave bands on a loudness grid. (*F.M.L.*)

FLETCHER, H. The dynamics of the middle ear and its relation to the acuity of hearing. *J. acoust. Soc. Amer.*, 24, 1952, 129-131.

The hypothesis is offered that the poor transformer action of the middle ear, as measured by Bekesy, is the cause for poor acuity of hearing for low frequencies. The hypothesis is tested and proved by calculus. *(F.M.L.)*

BEKESY, G. v. Dc resting potentials inside the cochlear partition. *J. acoust. Soc. Amer.*, 24, 1952, 72-76.

A preliminary attempt to measure resting potentials inside the cochlear partition is described. Micropipettes with a diameter of about one-third of a micron were used with a slowed perforating process. The force of the pipette thus acted only on the wall of an isolated cell and not on the whole Reissner membrane. The technique is rationalized mathematically.

The micropipette was introduced through a small hole in the bony wall just above Reissner's membrane and about 15 mm away from the stapes foot plate. During the time of perforation of Reissner's membrane the perforating electrode was negative relative to the scala vestibuli. This potential measured about −20 mv. After the perforation of Reissner's membrane the potential jumped suddenly to a +50 mv and stayed absolutely constant within the whole endolymphatic space. During the penetration of Hensen's cells and the cells of Claudius the potential dropped to −40 mv. After the basilar membrane had been perforated, the negative potential fell back to −2 mv and remained there during the further downward movement of the electrode.

The potential difference between endolymph and perilymph was reproducible with 10 per cent, the potentials inside the cells with 20 per cent. *(F.M.L.)*

STEVENS, K. N. Frequency discrimination for damped waves. *J. acoust. Soc. Amer.*, 24, 1952, 76-79.

The binaural frequency discrimination for single damped waves of three college students was studied. A parallel RLC network synthesized the damped waves. A beat frequency oscillator was used as a source for measurements of pure tone discrimination. The duration of each stimulus was 0.35 sec. as indicated by Turnbull.

The ABX procedure of Munson and Gardner was used to measure difference limens. One hundred ABX sequences were recorded on teletype tape. This tape controlled a set of relays, which in turn differentially activated the RLC circuit to produce the stimuli. A sound pressure level of 80 db re .0002 dyne/cm^2 in a volume of 6 cc was maintained for all stimuli. Frequencies between 200 and 5000 cps were studied.

Pitch discrimination for damped waves became less acute as damping increased or as the effective duration decreased. The effect was greater at low frequencies. The deterioration in pitch discrimination is accompanied by a decrease in tonality, and the stimulus began to sound more like a click than a tone. Beyond the region of click pitch, the DL increased very rapidly and pitch difference judgment became difficult. *(F.M.L.)*

HARRIS, J. D., HAINES, H. L. AND MYERS, C. K. Loudness perception for pure tones and for speech. *Arch. Otolaryng., Chicago*, 55, 1952, 107-133.

The purposes of this investigation were (1) to examine the question whether the growth of loudness for pure tones and the growth of loudness for speech follow similar courses, and (2) to offer data from clinical and normal subjects to help discriminate among theories of recruitment.

Thirty-one subjects were studied. Four normals were used to calibrate the speech system; four others simulated unilateral conductive deafness with an ear warden. The remaining 23 subjects had some degree of true monaural deafness. The method of alternate binaural loudness balance was used. Recorded speech material consisted of a Fulton Lewis, Jr. broadcast and a 20 minute oral reading by Harris.

The subjects were readily able to match the loudness of speech in two unequal ears and with as high a precision as for pure tones. Recruitment for speech patterned a course parallel to that for pure tones and approximately intermediate among recruitment curves for pure tones in the speech range. Four types of recruitment curves were distinguished: asymptotic, straight-line, delayed and delayed-asymptotic. No correlation appeared between type of curve and type of hearing defect.

The delay of some recruitment curves was thought to arise in one of three ways: 1. The normal ear itself may recruit, 2. The deafness may have a conductive component, 3. The recruiting ear may be partially deaf only at threshold which is overcome with

intensities somewhat higher than threshold. Recruitment analogues and differing recruitments according to deafness suggest that recruitment arises from any one of several sources. (*F.M.L.*)

Dadson, R. S. and King, J. H. A determination of the normal threshold of hearing and its relation to the standardization of audiometers. *J. Laryng.*, 66, 1952, 366-378.

Ninety-nine 'normal' subjects, ages 18-25, gave threshold data in a 'sound-proofed' room in an effort to establish reference standards for audiometer calibration. Results correlated highly with a recent R.A.F. study on 512 subjects in the same age group, and with Sivian and White's pressure values but were significantly lower than the U. S. Public Health Service and World's Fair figures. (*F.M.L.*)

Munson, W. A. and Wiener, F. M. In search of the missing 6 db. *J. acoust. Soc. Amer.*, 24, 1952, 498-501.

Difference in ear canal sound pressure when equally loud low frequency tones are presented alternately from an earphone and from a loud speaker has never been explained. The results of some B.T.L. measurements which show magnitude of the difference and various attempts to explain it are presented. (*F.M.L.*)

Fletcher, H. Perception of speech sounds by deafened persons. *J. acoust. Soc. Amer.*, 24, 1952, 490-497.

A method of calculus is described for determining the articulation index from the audiogram. The method is applied to calculate the response characteristics and maximum gain of a hearing aid for any amount and kind of deafness. (*F.M.L.*)

Hudgins, C. V. The research program in speech at the Clarke School. *Volta Rev.*, 54, 1952, 355-362.

The research program has followed two general designs: comparison of the speech of deaf and hearing children, and detailed analysis of the speech of deaf children to determine the errors and their effect on intelligibility. Both physiological and acoustic methods of experimental phonetics were employed. Deaf children use more breath while speaking. The author stresses the need for teaching phrasing and accentuation for proper speech rhythm. (*A.J.B.*)

Brill, R. G. The educational preparation of oral teachers of the deaf. *Amer. Ann. Deaf.*, 97, 1952, 313-327.

On the basis of data obtained from a survey of public residential and day schools for the deaf, some distinctions between the 'best' and 'poorest' teachers and between day and residential school teachers are noted in terms of type of training and certification. (*A.J.B.*)

Tshiassny, K. Mechanism of shadow hearing. *Arch. Otolaryng., Chicago*, 55, 1952, 22-30.

The process of shadow hearing was studied in two patients with complete monaural deafness and normal hearing in the other ear. The questions illuminated concerned the contribution to the tonal loss of each of two designated phases in the shadow hearing process: (1) sound waves introduced by air conduction into the external meatus of the deaf ear and then transmitted to the adjacent bony structures of the same side; (2) sound waves traveling through the skull to the opposite petrous bone.

Pure tone stimuli by air and bone conduction were offered to a subject under varying conditions of occlusion and non-occlusion of ipsilateral and contralateral ears. The audiogram relationships are interpreted to indicate: (1) that both the transition of air-conducted sounds into bone and the travel of bone-conducted sound waves across the skull contribute to the phenomenon, and (2) that the change of medium is responsible for about 50 to 70 db tonal loss and travel across the skull only 5 to 10 db.

An approximate analogy was established by placing a human head between the ear of a normal observer and the sound source. 'Stethograms' of an observer were taken with the bell of a stethoscope on the mastoid of the subject under varying conditions of meatal occlusion. 'Stethograms' under these conditions were parallel with shadow curves recorded on monaurally deaf. (*F.M.L.*)

Silverman, S. R. and Benson, R. W. Recent developments in hearing aids. *Hearing News*, 20 (5), 1952, 4-5, 20-22.

The authors estimate that there are between 800,000 and 1,000,000 hearing aid users in the country today, and from two and one-half to three times this number of

potential users. The design of a hearing aid should provide for: (1) gain, at least 30 db with provision for increase to 60 db; (2) reproduction of frequencies from 200 to 4,000 cycles; (3) maximum power output limitation. Present day aids provide sufficient gain, especially if there is good earmold fit. The combination of a crystal microphone and dynamic earphone gives ample coverage of frequencies. Maximum output is controlled by the limiting action of the vacuum tubes, with peak clipping or compression amplificaton. Other factors are external and internal noise, size, weight, color, and economy of operation. (*A.J.B.*)

VAN DEVENTER, A. J. AND SCANLON, J. A. Place of the hearing aid wearer in local industry. *Hearing News*, 19 (12), 1951, 7-8.

This report of a survey of employers in the Philadelphia area suggests that, in general, the attitude of industry is favorable toward the employment of the hearing aid wearer. (*A.J.B.*)

SIBILIO, J. P. Mental hygiene attitudes toward the child with hearing difficulties. *Hearing News*, 20 (1), 1952, 8-10.

Groups interested in the hearing handicapped have two functions: dealing with the primary impairment, and mental hygiene. Sound and constructive attitudes toward these children recognize a need for the feeling of security, for love, freedom from fear, opportunity to develop independence, parental consistency, prevention of inferiority feelings, and the avoidance of pushing beyond capacity. (*A.J.B.*)

NEWBY, H. A. Principles of auditory training. *Hearing News*, 20 (2), 1952, 6-11, 13-16.

The three interwoven facets of aural rehabilitation today are auditory training, lipreading, and speech training. Present screening hearing tests in school may miss a segment of the population who need auditory training, because, although their acuity for pure tones is normal, their 'real hearing'—listening with understanding—is defective. Auditory training should be given to people with permanent hearing impairment in both ears. Acoustically handicapped children should be divided into two groups: (1) those who will sooner or later be provided with individual hearing aids, (2) those whose losses are not sufficiently great to require the use of a hearing aid. The aims of training will differ for each group and must be further determined on an individual basis. The first group should learn to accept and use the hearing aid. It may be necessary to increase tolerance for loud speech. The teacher may work from a group unit to an individual aid. The second group needs improved use of their hearing. Books and materials for auditory training are discussed. (*A.J.B.*)

SATALOFF, J. Acoustic trauma in children. *Ann. Otol., etc., St Louis*, 61, 1952, 107-111.

Case reports are presented of three young patients with hearing defects that followed exposure to firecracker and cap pistol explosions. The author suggests that preventive measures be instituted against these causes. (*F.M.L.*)

SNOWDON, W. H. Les sourds-muets de 1851. *Volta Rev.*, 53, 1951, 551-552, 580.

A discussion of a reported visit to the French National Institute for the Deaf and Dumb originally published in 1852. (*A.J.B.*)

LETIZIA, G. M. Alphabet? What's that? *Volta Rev.*, 54, 1952, 9-10.

A report of the number of 'deaf' and 'educationally deaf' children in grades 4 through 9 (total *N* equals 46) who knew the complete alphabet. The author raises questions about the findings. (*A.J.B.*)

MILLER, J., moderator. Nursery and preschool. *Volta Rev.*, 54, 1952, 421-434, 464.

This paper is a report of a panel discussion of nursery and preschool placement of deaf children aged two to five. Included are standards and problems for Jr. High School 47 of New York, the John Tracy Clinic, Lexington School for the Deaf, American School at Hartford, and University of Kansas. (*A.J.B.*)

HAROLD WESTLAKE

Retiring President

Resolved: That the Association record its heartfelt appreciation for the abundant, intelligent services of its retiring President, Professor Harold Westlake. His earnest efforts have guided the Association through a year of constructive and fruitful growth

—The American Speech and Hearing Association, in convention at Detroit, Michigan, November 22, 1952.

S. RICHARD SILVERMAN

President

The American Speech and Hearing Association

News And Announcements

The American Psychological Association has announced that the 1954 International Congress of Psychology will be held in Montreal, Canada, rather than in New York, 'because of the delays and embarrassments which foreign scientists experience in attempting to obtain even temporary admission to this country.'

The University of Tulsa announces the opening of its new Maybee Speech and Hearing Clinic, made possible by a $55,000 grant from the J.E. and L.E. Maybee Foundation. Serving a four-state area, the clinic is modern in its nine-room plan for hearing and speech therapy and recording and acoustical studies. Parents may watch through one-way mirrors the therapy being given their children, a 'free-space' room permits special acoustic conditions, and construction is designed for sound control and reverberation reduction.

The American Philosophical Society will accept applications at any time for grants-in-aid of expenses for research in the physical, biological, social sciences and the humanities. The Committee on Research meets in October, December, February, April and June and considers all applications received up to one month prior to the meeting. Full information may be obtained from the executive office of the society, 104 S. Fifth St., Philadelphia 6, Pa.

The Psychological Notes and News Section of the *American Psychologist* is planning to publish announcements of current research and research-in-progress in psychology. Psychologists engaged in such projects, sponsored by government agencies, foundations, universities, institutes, or by individuals, should submit a description of the project and names of those in charge of the study.

The State of Pennsylvania recently established three Speech and Hearing Rehabilitation Centers, Harrisburg-Reading, State College, and Pittsburgh. These centers are headed by an audiologist assisted by a speech therapist, serving the surrounding area. The centers are administered by the Division of Special Education of the Department of Public Instruction, and have been established as the first in a program intended eventually to serve all areas of the state.

The Purdue Voice Communication Research Laboratory has accepted a contract to conduct acoustical research for the Army Chemical Corps. This research will supplement the continuing program being directed by M. D. Steer and T. D. Hanley for the Office of Naval Research of the Department of Navy.

The Junior League of San Francisco, Inc., has announced its sponsorship of the Speech and Hearing Clinic of Stanford University in order to broaden its training facilities as well as its community service, particularly in the service area of work with young children.

Two new chapters were accepted into Sigma Alpha Eta at its fourth annual convention, held in conjunction with the ASHA meetings in Detroit. The new chapters are: Omega Chapter, University of Wichita, Kansas, Martin Palmer, adviser, and Alpha Alpha Chapter, Eastern Illinois State College, Charleston, Illinois, McKenzie Buck, adviser. Sigma Alpha Eta now has 25 chapters in 14 states. The officers elected for the coming year are: President, Ruth Clark; Vice-President, Clara Mawhinney; Treasurer, Catherine Zimmer; Editor, Margaret Byrne; Executive Secretary, C. Cordelia Brong. The spring meeting of the Council will be held in Chicago at the time and place of the Central States Speech Association Conference.

News and Announcements is edited by Charles R. Elliott, Northwestern University, assisted by the following committee: Jane Beasley, University of Alabama; George Gens, Newark (New Jersey) State Teacher's College; Elise Hahn, University of California at Los Angeles; Earl Schubert, State University of Iowa.

Northwestern University will feature as part of its summer program this year a special symposium on Speech Correction and Audiology in the Public Schools. During the nine-week symposium various specialists will come to the campus to discuss their areas of special experience.

A New York Chapter of the National Rehabilitation Association was recently organized. Leo Stein and Elizabeth Stabler of Bellevue Hospital Rehabilitation Service have been named as co-chairmen for public relations.

The Master of Arts Degree in Speech is to be given for the first time this year at the University of Arkansas. Speech Correction is one of the areas of concentration.

The School of Medicine of Tulane University, New Orleans, has opened a Speech and Hearing Clinic in the Department of Otolaryngology. The clinic is under the direction of James McLaurin, M.D. and Jeannette K. Laguaite, Ph.D.

The Bill Wilkerson Hearing and Speech Center of the Tennessee Hearing and Speech Foundation, Nashville, is the recipient of a training project grant through the Department of Public Health from the U. S. Children's Bureau. By means of this grant the following staff appointments have been made: Forrest Hull, Assistant Professor of Speech Science in the Vanderbilt University School of Medicine and Director of Student Training at the Foundation; Thomas Makres, Instructor in Speech Pathology in the Audiology and Speech Curriculum of the School of Medicine; Robert Stephbach, Speech Correctionist.

The National Society for Medical Research, 208 N. Wells St., Chicago, has joined together 250 scientific and civic groups for a cooperative public information program. Their foremost concern is for long range education of the public, bringing about changes in medical news reporting.

The St. Paul Rehabilitation Center will offer its fourth annual Seminar in Cerebral Palsy during August. All aspects of cerebral palsy will be dealt with by experts giving lectures, demonstrations, and leading discussions and practice teaching sessions.

Emory University, Atlanta, will offer a six-weeks graduate program in speech and hearing this summer.

Northwestern University will sponsor a one-day lecture series by Dr. George Wischner, May second, on learning theory and its application to stuttering. At this time an open house will be held for the remodeled clinic facilities where the therapy rooms have been doubled, and for the new stuttering training-research laboratory.

A center for Improving Group Procedures has been established at Teachers College, Columbia University to provide consultation services for more effective group procedures.

The Virginia Hearing Foundation has recently been incorporated for the purpose of promoting better hearing through early diagnosis and more therapy and research in the State of Virginia. Fletcher D. Woodward of the University of Virginia Hospital is President and James Mullendore is Vice-President of the corporation.

The Cleft Palate Rehabilitation Center of St. Barnabus Hospital in Newark, N. J., has expanded its speech clinic facilities. Arrangements have been made to have students at Newark State Teachers College take part of their clinical training at the Hospital.

The thirteenth annual Parent Institute-Nursery School of the Michigan School for the Deaf will be held March 22 through March 27 at Flint, Michigan.

The State University of Iowa has accepted a grant from the Signal Corps to do basic psycho-acoustical research on several aspects of the hearing of one's own voice, by natural channels and through controlled sidetone.

For the sixth consecutive year the University of Michigan Speech Clinic has cooperated with the Office of Vocational Rehabilitation in Michigan in a clinic for the clients of the rehabilitation organization. This year's clinic was held in Alpena, Michigan. Residents of the area were given comprehensive examinations after which their problems and therapeutic plans were discussed.

The Purdue Speech and Hearing Clinic has initiated daily afternoon programs for cleft palate, cerebral palsy, aphasic, hard of hearing, and stuttering children as an extension of its former clinic program.

Two new graduate courses, Hearing Impairment in Children and Audiology are being added to the curriculum of the University of Delaware at Newark, Delaware. The courses will be taught by L. LeRoy Horne, Director of the Audiology and Speech Center of the Delaware Hospital in Wilmington.

A Voice Rehabilitation Clinic has been established in the Department of Otolaryngology of Northwestern University School of Medicine. Both diagnosis and therapy will be offered. Paul Moore will represent the speech pathology service in the clinic.

As part of the teacher-training program, Syracuse University announces its affiliation with the Clarke School for the Deaf. Seniors may spend a full year at the school, permitting dual certification. Syracuse is also affiliated with the Rochester School for the Deaf.

A new ten-room speech and hearing center has been established at the University of Virginia. The facility has been developed under the direction of Malcolm B. McCoy who recently joined the Department of Speech.

M. D. Steer consulted with Maria C. Bienvenue during his recent visit to Hospitale Infantile in Mexico City. Of particular interest was the esophageal speech of very young children.

A complete hearing center and speech clinic has been established for children and adults at Boston University under the direction of Wilbert Pronovost. Complete diagnostic service may be had through liaison with the School of Education, School of Medicine, Counseling Service, and the Massachusetts Memorial Hospitals.

A soundproof, anechoic chamber for determining and calibrating the performance of all types of radio communications equipment has been installed at the Air Research and Development Command's Wright Air Development Center at Dayton, Ohio. Modeled after the sound chamber in Harvard University's Cruft Laboratory, the new facility was built at a cost of $35,000 for use in the Center's communication and navigation laboratory.

Educational Testing Service has announced the formation of an evaluation and advisory service for test users in schools and colleges. The new service will be particularly concerned with the use of tests to evaluate results of school and college educational programs. Full information can be obtained from the director of the service at 20 Nassau St., Princeton, N. J. The Service has available for use in March, a new Advanced Speech Test, for college seniors and first-year graduate students. This three-hour examination has a balanced coverage of topics within the following principal areas: General Speech, Rhetoric and Public Address, Theatre, Speech and Hearing Disorders, Radio and Television, and Oral Interpretation.

The Cleveland Hearing and Speech Center will sponsor the second annual Institute on Voice Pathology on August 7-8 in connection with a four-week concentrated course on Voice Pathology which begins August 3. The Institute is designed to train teachers in the area of esophageal speech and is held in collaboration with the local chapter of the American Cancer Society. Over 300 children and adults will be available for observation and clinical practice at the Western Reserve University-Cleveland Hearing and Speech Center summer session program. A complete offering of the various special areas of speech and hearing work will be made, with many special lectures and demonstrations to provide practical experience in conjunction with class programs. For information and registration for the Institute write Warren H. Gardner, 11206 Euclid Ave., Cleveland 6, Ohio. For summer session information, write Director of Admissions, Western Reserve University, Cleveland 6, Ohio.

A new acoustics laboratory is being constructed at the Sheffield Building of Columbia University which will provide for an enlargement of the present academic program in acoustics. The expansion of activity in acoustics will make available several half-time graduate assistantships in the acoustics laboratory during each academic year.

The First International Course in Phonology and Phoniatry is being held March 2-8 in Paris, France, under the direction of Professor A. Aubin and Dr. J. Tarneaud. Lectures in various professional areas were presented by leading European specialists.

Meetings Announced

Southern Speech Association, March 30-April 4, Poinsett Hotel, Greenville, South Carolina.

Central States Speech Association, April 17-18, Hotel Sherman, Chicago.

American Association for Cleft Palate Rehabilitation, April 20-21, Biltmore Hotel, Atlanta, Georgia.

International Council for Exceptional Children, April 8-11, Boston, Mass.

Speech Association of the Eastern States, April 9-11, Hotel New Yorker, New York City.

Acoustical Society of America, May 7-9, Hotel Warwick, Philadelphia, Pennsylvania.

International Course in Paedo-audiology, June 1-4, Groningen, Holland; International Congress of Audiology, June 5-6, Leyden, Holland; International Congress on Electro-Acoustics and Symposium on the Sound Insulation of Lightweight Structures, June 15-21, Delft, Eindhoven, Hilversum, Holland. Information on these available from: Dr. H. C. Huizing, 182 Oostersingel, Groningen, Holland.

International Congress of Electroencephalography and Neurophysiology, August 18-21, Boston, Mass.

Ninth International Convention for Speech and Voice Therapy of the International Association for Logopedics and Phoniatrics, September 1-5, Milan, Italy.

American Psychological Association, September 4-9, Michigan State College, East Lansing, Michigan.

Speech Association of America, week of December 26th, Hotel Statler, New York, New York.

New Materials

A new journal, *The Annals of American Research*, is being published by the Public Affairs Press, 2153 Florida Avenue, Washington 8, D. C.

Encyclopedia Britannica Films has issued a 78 rpm album of five double face 12 inch records by Dr. Charles Van Riper under the title, *Fun With Speech*. List price is $10.95 per album. The records present exercises in story form to motivate speech sound improvement in children.

A pamphlet on acoustical materials is available from the American Society for Testing Materials, 1916 Race St., Philadelphia, Pennsylvania. The bulletin is known as Special Technical Publication No. 123.

Dryden Press, 31 West 54th St., New York 19, has issued its third booklet in its series, *If You Are Writing a Book*, as a guide to authors, available gratis.

Reports of Progress on the study of the qualifications and preparation of teachers of exceptional children are available through the Office of Education, Federal Security Agency, Washington, D. C.

A four-reel, 16mm, sound film, The Motokinesthetic Method of Speech Training, has been issued by the University of Denver Press, University Park, Denver 10, Colorado. The film provides demonstration and discussion, by Dr. Edna Hill Young, of problems of voiceless consonants, vowel introduction, voiced consonants and phonetic breakdown. A booklet describing the film and its use is included in the $75.00 purchase price.

Two reprints are available from Audio Devices, 444 Madison Ave., New York 22, giving quick facts on over 60 models of magnetic tape recorders and on a wide range of disc recorders.

A new inexpensive glass-beaded movie screen, washable, flame and mildew proof, has been marketed by Radiant Manufacturing Corp., Chicago 8, Ill.

A number of interesting publications have been received: folder describing organization and services of the Speech Clinic of the May T. Morrison Center for Rehabilitation in San Francisco; booklet describing Camp Jened, a new camp for the physically handicapped, Mrs. Leona S. Burger, Director; the 1953 annotated list of phonograph records, kindergarten through high school, and the 1953 annotated list of books for the same grades, from Children's Reading Service, 1078 St. John's Place, Brooklyn 13, N. Y.; leaflet describing services of Boston University Speech and Hearing Center.

Mathematical Computing Service, Room 604, 105 Court Street, Brooklyn 2, N. Y., offers a complete service in statistics and acoustics from layout of a study to analysis and interpretation of data. The service specializes in dealing with problems of industries and universities.

Graduate Assistantships, Fellowships and Scholarships

This section, an annual feature of the December issue, lists part-time graduate appointments, fellowships, and scholarships specifically designated for graduate work in speech and hearing. General university fellowships and scholarships, unspecified as to area of concentration, and fulltime graduate positions will not be included. Only those announcements received too late for the December issue are printed in other issues.

Copy should be submitted to the News and Announcements Editor, and should include formal title of appointment, institution, and unit; dates, general duties, and remuneration; name and address of persons receiving applications. Deadline for receiving copy is 20 December, 20 March, 20 June, or 20 September.

Assistantships. University of Florida. Nine months starting September 16, 1953; two months, starting June 16, 1954. $100 per month. Clinical work in speech and hearing. Write H. P. Constans, Department of Speech, or Darrel J. Mase, Florida Center of Clinical Services.

Assistantships. University of Pittsburgh. Nine and one-half months starting September. $1500.00. Permit carrying of a three-fourths load in graduate program. Students pay own fees of about $200 for school year. Requires 15 to 18 hours weekly of clinic service with children and adults. The assistantship may be extended for the summer term, which would pay $300.00.

Scholarship. American Hearing Society Kenfield Memorial Scholarship. Annually awarded to a prospective teacher of lip-reading to the hard of hearing. Application blanks may be obtained from Miss Rose V. Feilbach, American Hearing Society, 1157 North Columbus St., Arlington, Va. Deadline for application return is May 1.

News about People

Carl Ritzman, on sabbatical leave from the University of Oklahoma, has joined the extension division of the Newark (N.J.) State Teachers College.

Mary Elizabeth Peebles has been appointed to the staff of the Virginia State Department of Education as assistant supervisor of special education, in charge of speech education and hearing conservation.

H. Lee Paul, Jr. has been appointed assistant professor of speech at Radford College, in charge of speech correction services.

Libby Radus has been designated to head the Hampton Roads Service League Speech Clinic in Newport News, Virginia.

Thayne A. Hedges has joined the faculty of Sacramento State College as assistant professor in speech, with primary duties in the speech clinic.

Eleanor Semel has joined the staff of the extension division of the Newark (N.J.) State Teachers College.

Patricia McCoy Herendeen and Janet D. Holzberger have joined the speech correction staff of the Chicago Public Schools.

Recent staff appointments at the University of Michigan include: George Herman, in charge of the hearing division of the Speech Clinic; Prudence Brown, in charge of the children's division of the Speech Clinic; Margaret Schilling, as social case worker in the Speech Clinic; Merle Lawrence as Associate Professor of Physiological Acoustics in the School of Medicine and the Institute for Industrial Medicine.

Gloria Loebenson has joined the staff of the Institute of Physical Medicine of Bellevue Medical School, as senior speech therapist.

Recent appointments to special clinics in San Francisco, California, include Lucie Lawson as Director of the Speech Clinic at Franklin Hospital and Kenneth Johnson as Director of the Audiology Clinic at the Veterans Hospital.

REPORT OF THE CONVENTION

American Speech and Hearing Association

DETROIT, MICHIGAN, NOVEMBER 20-22, 1952

(For the first time in the history of ASHA, a stenographic report was made of the Council and Business Meetings. The 346-page stenographic report and the printed copies of reports submitted by Committee chairmen, which were not duplicated by the recorder, constitute the minutes of the 1952 Convention. These are on file in the office of the Secretary-Treasurer. The following abstract of the proceedings includes all matters of business introduced by motions during the Council and Business Meetings.)

Council Meetings

November 19, 1952, 9:00 a.m.

Members present at this meeting were: Harold Westlake, presiding, Stanley Ainsworth, Ollie Backus, Myfanwy E. Chapman, Raymond Carhart, Grant Fairbanks, Ernest H. Henrikson, George A. Kopp, Gordon E. Peterson, Margaret Hall Powers, S. Richard Silverman, and M. D. Steer.

President Westlake called the meeting to order and expressed a hope that the Council could complete the business on the agenda before Thursday morning.

Minutes of 1951 Convention. Kopp stated that the minutes of the 1951 Convention were published in the March, 1952, issue of the *Journal* and that he would be glad to read them if the Council so desired.

Moved by Fairbanks and seconded by Steer that the 1951 minutes be approved as printed. Passed.

Report of President-Elect. Silverman reported that he had fulfilled the functions of the President-Elect as outlined in the By-Laws and that his work on the Committee on Honors and the Committee on Committees would be reported separately.

Moved by Henrikson and seconded by Powers that the report be accepted. Passed.

Report of Vice-President. Ainsworth presented the program of the Convention as his report.

Moved by Powers and seconded by Backus that the report be accepted. Passed.

Report of Vice-President-Elect. Powers had no report because no duties are relegated to this office.

Moved by Fairbanks and seconded by Carhart that the report be approved with commendation. Passed.

Report of Executive Vice-President. Henrikson presented his report dealing with designation of persons, other than the Executive Vice-President, to attend the various meetings during the year, the liaison work with the Midcentury White House Conference for Children and Youth, with a recommendation that the ASHA contribute $50.00 this year and $50.00 next year for the program of the Midcentury Committee, the recommendation of his Committee regarding the proposed relations of ASHA with the Speech Association of America, the suggested time and place for future conventions, and the projected study of the status of speech correction in the United States.

Moved by Fairbanks and seconded by Carhart that the report be received for consideration. Passed.

Moved by Carhart and seconded by Backus that the proposal on the Mid-century White House Conference ($50.00 to be given this year and next year) be approved. Passed.

Moved by Henrikson and seconded by Peterson that the phase of the report dealing with the Speech Association of America be deferred until later. Passed.

Moved by Peterson and seconded by Kopp that the remainder of the report be accepted. Passed.

Report of Committee on Time and Place. Henrikson reported that on the basis of the vote of the Council, it was recommended

that the 1953 meeting of ASHA be held in New York City, at the Hotel New Yorker, November 23, 24, and 25, and that the second choice be that the meeting be held October 26, 27, and 28, also at the Hotel New Yorker.

Moved by Carhart and seconded by Ainsworth that the Council report to the membership the two dates available, with the recommendation that the Convention be held during the November period. Lost.

Moved by Backus and seconded by Steer (amended by Fairbanks and Kopp) that in consideration of the report of the Committee on Time and Place, the 1953 Convention be held in New York City, at the Hotel New Yorker, October 26, 27, and 28. Passed. (This action was subsequently rescinded. See minutes for the Council Meeting of November 21.)

Moved by Carhart and seconded by Ainsworth (amended by Fairbanks) that the Committee on Time and Place take cognizance of the discussion, and try to bring back to the Council at its next meeting a recommendation regarding a specific place for the 1954 meeting and a long term program extending at least through the year 1957. Passed.

Report of Editor. Fairbanks presented his report in three parts: first a written portion dealing with his staff, contributions to his staff and allocation of space and equipment by the University of Illinois, and an analysis of material published during the year; second, specific proposals and requests; and thirdly, request for suggestions.

Moved by Steer and seconded by Carhart that the report be approved with commendation to the Editor and his staff. Passed.

Fairbanks asked for the opinion of the Council concerning the practice of publishing the names of Associates in the *Directory* of the Association.

Moved by Backus and seconded by Silverman that Associates not be listed in the *Directory*. Passed.

Fairbanks mentioned the publication of a 15-page supplement to the *Directory* in 1952 and expressed his reasons for not wanting to continue this publication. The Council concurred with the Editor's decision. Fairbanks discussed the types of listings that have been used in the *Directory*, received the approval of the Council on them, and proposed that in consideration of the increased size of the *Directory* and its cost, that the price be changed to $1.00.

Moved by Henrikson and seconded by Ainsworth that the price of the *Directory* be $1.00 per copy. Passed.

Fairbanks next raised the question of who is responsible for creating the Convention flyer and program. After considerable discussion, it was agreed by common consent that the Secretary has the responsibility of securing from the Chairman of the Program Committee the information and material needed for one part of the flyer, completing the copy and submitting it to the Editor. This same procedure is to be followed in respect to copy for the program with the understanding that the Program Committee is responsible for preparing the copy for the program and submitting it to the Secretary on or before the date agreed upon. The Secretary is responsible for preparing the copy for business matters to be included in the program and for submitting the entire copy to the Editor by the date set.

Moved by Backus and seconded by Carhart that there be issued a call for Convention papers in the March issue of the *Journal* and that a deadline be made of June 1st.

Moved by Fairbanks and seconded by Powers to amend the motion by striking out 'June' and inserting 'July.' After discussion, Powers withdrew her second to the motion to amend and Carhart seconded it. Lost. Main motion passed.

Fairbanks introduced the problem of the price to authors of Monograph Supplements. It was agreed, without formality of a motion, that authors of Monographs be given 12 complimentary copies and be permitted to purchase at cost an unlimited number for personal use, but not for resale.

Fairbanks presented for future consideration the contemplated services of the University of Illinois Press in relation to the printing and distribution of the book, and explained a phase of his editorial policy and procedure concerning the participation of the Associate Editors and others in evaluating and editing manuscripts. The Council supported the Editor's current procedure and suggested that when a consultant not on the Editorial staff assists with a manuscript, he be privileged to determine whether or not he may be identified to the author.

President Westlake declared the meeting in recess at 12:05 p.m. to 1:30 p.m. of the same day.

President Westlake reconvened the meeting at 1:35 p.m., and asked Fairbanks to continue with his proposals.

Fairbanks raised the question of including professional affiliations, as well as addresses in the primary listings of Members in the

Directory. The Council approved by common consent the inclusion of professional affiliations in the *Directory*. The *Directory* information card mailed annually to each member will be revised to include this item.

Report of Committee on Nominations. Steer discussed the procedure followed by his Committee in accordance with the By-Laws of the Association and presented a slate of nominees for Council consideration.

Moved by Fairbanks and seconded by Carhart that the report be received for consideration. Passed.

In consideration of the report of the Committe on Nominations, the Council approved the following nominees to be presented to the membership:

President-Elect: Harlan Bloomer, Spencer F. Brown

Vice-President-Elect: Gordon E. Peterson

Councilor, to replace Backus: Stanley Ainsworth, Adah Miner

Councilor, to replace Peterson: James F. Curtis, T. D. Hanley

(Subsequently, Brown declined the nomination for President. See below.)

Moved by Carhart and seconded by Powers that the Committee on Nominations be commended for its work. Passed.

Report of Committee on Budget. Kopp presented the report of the Committee on Budget which included the official auditor's report, June 30, 1952, an itemized statement of income and expenses for the period July 1, 1951 to June 30, 1952, a comparative statement of income and expenses for the past five years, an inventory of the *Journal of Speech and Hearing Disorders*, and a balance sheet as of November 30, 1952. (Extracts from this report are printed following these minutes.)

Moved by Fairbanks and seconded by Henrikson that the report be accepted with commendation. Passed.

Moved by Fairbanks and seconded by Backus (amended by Peterson) that the Budget Committee be instructed to explore again the possibility of investing some of the surplus funds. Passed.

Classification of Speech Pathologists in Government Services. President Westlake asked Merle Ansberry to review the results of conferences held with representatives of Clinical Psychology and the Department of Personnel of the Veterans Administration.

Ansberry presented an unofficial account of the favorable reaction to a proposal that there be set up a postion in the Veterans Administration, and ultimately in all government services, which is separate from Clinical Psychology, and which is based on the individual's experience and qualifications in speech pathology. Ansberry asked if the establishment of a job description of speech pathology with no parentheses would be acceptable to ASHA and if the position of speech pathologist is approved, what officer or Committee of ASHA could be consulted concerning the description of the position.

Fairbanks expressed the sentiments of the Council by recalling that the archives of the Association will show that for years the Association has been working in the direction of this outcome, that approval be registered, and that questions concerning the description of the position may be transmitted to the President of ASHA.

Moved by Carhart and seconded by Backus that the Council express its appreciation for the accomplishment of the task for which the Association has long felt the need. Passed.

Dues. Moved by Kopp and seconded by Backus that the 1953 dues for Membership in ASHA be $6.00. Lost.

Bonus to the Administrative Assistant to the Secretary-Treasurer. Moved by Kopp and seconded by Carhart that in consideration of long, faithful and efficient service in behalf of ASHA, Martha Tuck be awarded an additional $200.00 bonus for the present year. Passed.

Report of Committee on Membership. Kopp reported that 512 persons were approved for Membership during the period January 1, 1952 to November 1, 1952.

Moved by Fairbanks and seconded by Backus that the report be approved. Passed.

Kopp explained that the Membership Committee had been unable to process the applications of 213 persons because in most cases, the transcripts had been sent to the Chairman of the Committee on Clinical Certification and that it had been impossible to get the transcripts from that office. Considerable confusion and delay could be avoided if everyone understood that the Committee on Clinical Certification can process only Members of ASHA. The procedure in the Secretary's office is simple, straightforward and routine. Applicants for Membership should send their transcripts along with the application for Membership card to the Secretary-Treasurer, who by virtue of his office, is Chairman of the Committee on

Membership. The application for Membership is processed and a list of new Members along with their transcripts is forwarded each month to the Chairman of the Committee on Clinical Certification.

Council Consideration of Applications for Membership. Kopp recommended that the Council approve the applications for Membership of two persons who do not hold Bachelor's degrees. The Council requested more information concerning one of these applicants and approved the other for Membership.

Report of Committee on Honors. Silverman reported that the Committee on Honors had no recommendations for Honors of the Association this year.

Moved by Fairbanks and seconded by Kopp that that portion of the report of the Committee on Honors concerning Honors of the Association be approved. Passed.

The sections of this report pertaining to Fellowship and Resolutions were postponed until another meeting.

Report of the Committee on Placement Study. Backus reported that the two placement services, the SAA and the National Society for Crippled Children and Adults, were not entirely adequate for our membership, that there is considerable unofficial placement service being conducted in the offices of the President and Secretary-Treasurer, and that the Committee felt it desirable and possible to move in a non-expensive and simple way toward the establishment of a placement service. She asked Kopp to present the proposal to the Committee.

Kopp expressed a long standing desire to establish a placement service. The proposed plan would be based on the establishment by registration of two lists. One list would be made up of applicants who wish to change positions or to obtain positions in the field of speech and hearing. Another list would include the institutions, schools, and agencies which are looking for speech and hearing therapists. Information included in the *Directory* would be used on the list of applicants and a brief description of each position would be included on the list of job opportunities. The office of the Secretary would serve as the place of registry and the agency for exchange of identifying information between applicants and employers. All of the exchange of references, credentials and recommendations would be left to the individuals involved. The service would be confined to Members and would be free of charge at this time.

The Council discussed at length the many problems involved.

Moved by Carhart and seconded by Steer that the over-all policy for a placement service be approved and that the details be reviewed and approved by the Council. Passed.

Moved by Fairbanks and seconded by Carhart that the report of the Committee on Placement Study be accepted. Passed.

It was agreed by common consent that the Committee on Placement Study should be continued in order to complete the details necessary to establishing a placement service.

Report of Committee on Exchange of Materials. President Westlake presented the report which had been mailed to him by Albert O. Weissberg.

Moved by Steer and seconded by Carhart that the report be accepted for consideration. Passed.

Moved by Carhart and seconded by Peterson that the members of the Committee on Exchange of Materials present at the Convention be invited to meet with the Council to discuss the question of future procedures in this area. Passed.

President Westlake recessed the meeting at 5:00 p.m. to 7:00 p.m. of the same day.

Report of Committee on Minimum Requirements for Hearing Clinics. Carhart explained that certain items of his report were in need of further discussion by his Committee before it could be submitted and requested permission to report in full at a subsequent Council Meeting.

Report of Committee on Ethical Practice. Brown reported that the activities of his Committee were confined largely to clarification of one portion of the Code of Ethics, and to dealing with three relatively minor infractions that came to the attention of the Committee. Brown concluded his report with the announcement that he would be on active military duty soon and suggested to the Committee on Nominations that they nominate a new chairman for the Committee on Ethical Practice.

Moved by Steer and seconded by Kopp that the report be accepted. Passed.

Nominations. In consideration of additional recommendations by the Chairman of the Committee on Nominations, Margaret Hall Powers was nominated in place of

Brown for President-Elect, and Ollie Backus was nominated in place of Brown for Chairman of the Committee on Ethical Practice.

New Business. Moved by Fairbanks and seconded by Brown that there be established a temporary committee to be entitled the Committee on Association Planning, to consist of three members as follows: Steer, Chairman, with Martin F. Palmer and Wendell Johnson as members. Passed.

Fairbanks introduced the subject of charging fees for certification.

Moved by Backus and seconded by Carhart that the matter of fees for certification be placed on the agenda for the 1953 Convention. Passed.

Reorganization Plan of SAA. The Council engaged in protracted discussion of the plan for reorganization of the Speech Association of America, as advanced by Professor Wilbur E. Gilman, since certain proposals in that plan involve ASHA. General agreement was reached as to the attitude of ASHA toward this plan. Moved by Powers and seconded by Peterson that Fairbanks draft a resolution expressing the attitude of ASHA toward the plan to be presented to the Membership for action. Passed.

Other matters including a committee with APA, Brown's Editorial in the *Journal*, and a magazine entitled, *The Decibel*, were discussed informally.

Adjourned at 12:00 p.m.

November 21, 1952, 8:00 p.m.

Members present at this meeting were: Harold Westlake, presiding, Stanley Ainsworth, Ollie Backus, Spencer F. Brown, Myfanwy E. Chapman, Raymond Carhart, Grant Fairbanks, Ernest H. Henrikson, George A. Kopp, Eugene T. McDonald, Gordon E. Peterson, Margaret Hall Powers, S. Richard Silverman, C. Van Riper.

President Westlake called the meeting to order and read a congratulatory telegram from Ex-President D. W. Morris.

Report of Committee on Time and Place (continued). Henrikson reported that the October 26-28, 1953 dates were no longer available at the Hotel New Yorker, and that October 19-21 and November 23-25 dates would be held open until after the closing of our Convention.

Moved by Carhart and seconded by Powers that the Council recommend to the Membership that the 1953 Convention be held November 23-25, at the Hotel New Yorker, New York City. Passed.

Henrikson presented the second part of his report dealing with places for the 1954, 1955, 1956 and 1957 Conventions. Times for these meetings would have to be decided after study of information yet to be obtained in respect to hotels. The general pattern for meeting places recommended by the Committee included the following: 1954, the Central Area, St. Louis, Pittsburgh, Philadelphia or Chicago; 1955, the West, San Francisco or Los Angeles; 1956, Central, Chicago; 1957, the East, Washington, Boston, or some other city.

Moved by Ainsworth and seconded by Carhart that this phase of the report be accepted for consideration. Passed.

During the discussion, St. Louis was agreed upon for the meeting place in 1954, San Francisco in 1955, Chicago in 1956 and Washington, Boston or some place in the South in 1957.

Report of Committee on Placement, Advisory to the Placement Service of NSCCA. Herbert Koepp Baker reviewed ASHA's pleasant and profitable relationship with the National Society for Crippled Children and Adults with regard to the use of their placement service, mentioned that a new person is now in charge of the Placement Service, suggested that there was no further necessity for his Advisory Committee, recommended that the Chairman of the Committee on Placement Study function in a kind of liaison relationship with the National Society to make the gradual termination plans pleasant and dignified.

Moved by Carhart and seconded by Henrikson that it was not the sense of the action taken earlier by the Council that termination of existing placement services was anticipated. Passed.

Moved by Powers and seconded by Kopp that the report be accepted. Passed.

Report of Committee on National Registries. Wendell Johnson reported that he had been informed that the kind of personnel that was being listed by the government was entirely within the field of the physical sciences and there was no registry being prepared to which our needs would be relevant.

Moved by Kopp and seconded by Silverman that the report be accepted. Passed.

Report of Committee on Speech Correction Fund. Johnson presented the financial report of the Committee. (This report is printed in full following these minutes.)

Moved by Backus and seconded by Kopp that the report be accepted. Passed.

Moved by Johnson and seconded by Peterson that the Council authorize the Committee on Speech Correction Fund to process applications for scholarships and grants-in-aid for research as funds become available. Passed.

Report of Committee on Clinical Certification. McDonald presented the report of the Committee. (This report is printed in full following these minutes.)

Discussion of the report was focused primarily on ways of expediting the work of the Committee.

Moved by Kopp and seconded by Carhart that the report of the Committee be accepted. Passed.

McDonald recommended that the budget for his Committee be continued at the same amount as for last year.

Moved by Kopp and seconded by Ainsworth that the recommendation of the Chairman of the Committee on Clinical Certification with respect to his budget of 1953 be approved. Passed.

McDonald recommended that the date under which persons may apply for clinical certification under the Grandfather Provision be extended from September 1, 1952 to September 1, 1953. This does not mean that the date by which the work should have been completed will be changed. That would still be July 1, 1952. Another year is recommended in which to make an application.

Moved by Kopp and seconded by Peterson that the recommendation to extend the Grandfather Clause to September 1, 1953 be approved. Passed.

Report of Committee on Clinical Standards in Speech. D. C. Spriestersbach recommended the main activities with which his Committee should concern itself and outlined specific procedures and principles to be followed. (This report is printed in full following these minutes.)

Moved by Carhart and seconded by Ainsworth that the report be accepted. Passed.

After the report was accepted, Spriestersbach raised the question as to whether or not the Council approved the activities as outlined as being acceptable activities of the Committee.

Moved by Ainsworth and seconded by Carhart that the Committee be instructed by the Council that no short course is desired for the 1953 Convention. Passed.

Spriestersbach asked for a clarification of the Council's acceptance of his report in regard to the recommended procedure for evaluation of applications for certification in speech from individuals with atypical training and experience.

Moved by McDonald and seconded by Carhart that . . .

> the following procedures be approved by the Council for processing atypical applications for certification; first, that the application would go directly to the Certification Committee. The Certification Committee would process it in the usual way and when it was found upon reviewing evaluations that this was an atypical case, we would ask the Standards Committee to prepare an examination to cover the material in which this candidate had been found to be deficient.
>
> The examination would be of three parts. First, a written examination to be administered at his school, that is, the candidate's school, under some sort of supervision. Second, an oral examination, and third, a demonstration of clinical competency.
>
> Now, how those things would be given becomes another matter, but all we are talking about now are the standards by which we can remove this deficiency.

Motion passed.

The question of how the examinations were to be administered was discussed.

Moved by Carhart and seconded by Ainsworth that the interpretation of the By-Laws be that the Committee on Clinical Standards set up the examination and administer it. Passed.

Moved by Peterson and seconded by Carhart that a petty cash fund of $100.00 be set up for the Committee on Clinical Standards in Speech. Passed.

McDonald expressed the need of his Committee for a standard to be followed in processing applications for dual certification. Specifically, how much work and experience in one area should be counted in the other area.

A motion was passed on this subject that was later rescinded and the Council disposed of the matter by requesting that the Committees on Clinical Standards in Speech and Clinical Standards in Hearing meet jointly and report their recommendations to the Council at the Saturday meeting.

Report of Committee on Clinical Standards in Hearing. Leo G. Doerfler presented the report of his Committee. (This report

is printed in full following these minutes.)

Moved by McDonald and seconded by Backus that the report be accepted. Passed.

Moved by Carhart and seconded by Ainsworth that the Committee be instructed to change its procedure for the oral examination so as to conform to its present recommendation. Passed.

Moved by Peterson and seconded by Brown that the Committee be authorized to deputize some member of the Association to administer the examination. Carried.

Moved by Powers and seconded by McDonald that ASHA provide financial assistance for a late winter or early spring meeting of the two Committees on Clinical Standards. Passed.

Report of Committee on Minimum Requirements for Hearing Clinics (continued). Carhart presented the report of his Committee. (This report is printed in full elsewhere in this issue.) It was the recommendation of the Committee that the report be accepted as the Association's statement and that the Committee be terminated. It was suggested by Carhart that the Committee on Clinical Standards in Hearing carry on with the problems of implementation.

Moved by Brown and seconded by Kopp that the report be accepted. Passed.

Moved by Carhart and seconded by Backus that the report be published in the *Journal* in such a way that reprints of it may be made available and that the Association procure at the time 1000 reprints. Passed.

Moved by Carhart and seconded by Ainsworth that the Committee on Clinical Standards in Hearing review the problems involved in certification, which are raised by this report, and try to work out plans to meet the problems. Passed.

Moved by Kopp and seconded by McDonald that the recommendation of Carhart's Committee for its own termination be approved. Passed.

Graduate Record Examination in Speech. James F. Curtis remarked that about five years ago he was appointed to represent ASHA in a joint enterprise with SAA, working with the Educational Testing Service, to prepare a graduate record examination in the field of speech. The development of the examination, experimental administrations of it and the general nature of its content in final form, as well as its availability sometime in February were included in the report.

Report of Committee on Honors (continued). Silverman read the Resolutions. Moved by Carhart and seconded by Backus that this portion of the report be approved. Passed.

In consideration of the report of the Committee on Honors the following persons were approved for Fellowship in the Association: John Clancy, John H. Gaeth, Lester L. Hale, T. D. Hanley, Ruth Beckey Irwin, T. Earle Johnson, Elvena Miller, Wilbert Pronovost, D. C. Spriestersbach, and Kenneth Scott Wood.

Moved by Carhart and seconded by Powers that the services of Brown as Chairman of the Committee on Ethical Practice be commended most highly. Passed.

Moved by Kopp and seconded by Ainsworth that the Council accept the resignation of Brown as Chairman of the Committee on Ethical Practice. Passed.

Report of Committee on Committees. This report was incomplete at the time of this meeting, and will be submitted later by the Chairman. (This report is printed in full following these minutes.)

Termination of Committee on Exchange of Materials. Moved by Silverman and seconded by Backus that the Committee on Exchange of Materials be dissolved. Passed.

The meeting was adjourned at 12:00 midnight.

November 22, 1952, 3:35 p.m.

Members present at this meeting were: Harold Westlake, presiding, Stanley Ainsworth, Ollie Backus, Raymond Carhart, Grant Fairbanks, Ernest H. Henrikson, George A. Kopp, Gordon E. Peterson, Margaret Hall Powers, and S. Richard Silverman.

Westlake called the meeting to order and read a letter pertaining to the meeting place for 1955.

Moved by Peterson and seconded by Backus that the Council recommend to the membership that the 1955 Convention be held in Los Angeles. Passed.

Letter from Public School Supervisors. A letter from public schools supervisors was referred to Silverman for reply.

Dual Certification Requirements. Backus presented the report for the two Committees on Clinical Standards. (This report is printed in full following these minutes.)

Moved by Kopp and seconded by Powers that the report be approved for one year. Passed.

Certificates for Basic and Advanced Certification. The need for some form of certificate to be issued to persons certified on the Basic or Advanced level in Speech or Hearing was discussed.

Moved by Backus and seconded by Henrikson that the Council approve the preparation and issuance of certificates to persons certified. Passed.

It was agreed by common consent that McDonald draft the form and secure advice with respect to format from the Editor.

Future Publication Policies. Fairbanks reviewed the present status of *The Journal of Speech and Hearing Disorders* with respect to publication lag and the anticipation of increased lag in the near future. Asking for no action, he reiterated his previous proposal that the Association establish a second journal to be distributed to all Members and Associates. He suggested as a suitable title *The Journal of Speech and Hearing Research*, described the nature of the proposed new journal, and outlined the bases of his recommendation. The Council informally favored the proposal.

Meeting adjourned at 4:40 p.m.

Business Meetings

November 20, 1952, 7:30 p.m.

President Westlake called the meeting to order, announced that 753 persons had registered for the Convention on the first day (Final registration was 899), called attention to the exhibits, and proceeded to report to the Membership the work of the Council on the preceding day.

Council Actions on Minutes and Reports of Officers. Westlake stated that the minutes of the 1951 Convention as published in the *Journal* were presented and approved. The reports of the officers, including the President-Elect, Vice-President, Vice-President-Elect, Executive Vice-President and Editor, were abstracted and presented as approved by the Council.

Moved by M. D. Steer and seconded by James F. Curtis that the Council action on the 1951 minutes and reports of the officers be approved. Passed.

Election of Officers, Councilors, and Committee Chairman. In consideration of the report of the Committee on Nominations, the Council presented the following slate of nominees to the Membership:

President-Elect: Harlan Bloomer, Margaret Hall Powers
Vice-President-Elect: Gordon E. Peterson
Councilor (to replace Backus): Stanley Ainsworth, Adah Miner
Councilor (to replace Peterson): James F. Curtis, T. D. Hanley
Chairman of the Committee on Ethical Practice: Ollie Backus

Westlake explained the method of balloting and appointed the following tellers: Wallace A. Goates, Glenn J. Taylor, Marjorie Burkland, Laila Larson, Mary Quirk, and Jack Matthews.

Balloting proceeded for each of the offices after a call for nominations from the floor. The following persons were elected:

President-Elect: Margaret Hall Powers
Vice-President-Elect: Gordon E. Peterson
Councilor (to replace Backus): Stanley Ainsworth
Councilor (to replace Peterson): James F. Curtis
Chairman of the Committee on Ethical Practice: Ollie Backus

Report of the Committee on Budget. Westlake abstracted the report as presented by George A. Kopp and stated that the report would be published in the *Journal*.

Moved by Grant Fairbanks and seconded by Ira J. Hirsh that the Association declare itself as commending the Treasurer. Passed.

Report of the Committee on Membership. Westlake summarized the report presented by Kopp. During the year the Committee on Membership approved 513 new members and they have on hand 212 incomplete applications. It was announced that persons applying for Membership should send credentials to the Secretary-Treasurer first. If the applicant is also applying for clinical certification, the credentials will be forwarded to the Chairman of the Committee on Clinical Certification. It was emphasized that applicants must be elected to Membership with payment of dues before applications for clinical certification may be accepted.

Report of the Committee on Ethical Practice. Westlake repeated the report as presented by Brown and asked for approval of the reports that had to this time been presented and accepted by the Council.

Moved by M. D. Steer and seconded by Louise D. Davison that the reports be approved. Passed.

Report of the Committee on Placement Study. Westlake outlined the substance of the report as presented by Ollie Backus and stated that the Council approved the suggestion that a placement service be established in ASHA. The Committee on Placement Study is to work out the details and the Council will receive and pass upon the detailed plan during the year.

Moved by Wilbert Pronovost and seconded by Victor P. Garwood that the report be approved. Passed.

Editorial in the September issue of JSHD. President Westlake stated that the Council had devoted some time to discussion of an editorial relating to the problem of training speech correctionists for the public schools which had been published in the September, 1952, issue of the *Journal* and had been written by Spencer F. Brown, Associate Editor. Because of the unusual interest which had been expressed in this editorial and the apparent division of opinion, President Westlake requested Fairbanks to make an explanatory statement.

Fairbanks stated that his primary purpose in publishing the editorial was to stimulate thought and discussion about this important issue, and that he had published the works of Brown as a signed editorial because Brown was a member of the Editorial Staff. He stated that the editorial reflected editorial opinion and was not to be interpreted as representing the official position of ASHA on the problem in question.

Lengthy discussion ensued. Among the participants were Ainsworth, Backus, Martha Black, Brown, Curtis, Ernest C. Fossum, Elise Hahn, George Herman, Jack Matthews, Robert L. McCroskey, Jr., McDonald, Alonzo J. Morley, Joseph M. Wepman, Jane Dorsey Zimmerman.

Need for Members with Advanced Certification in Certain Localities. Westlake mentioned that attention of the Council had been called to the need for Members with Advanced Certification in the South, Northwest and West, so that applications could be signed from those areas. The Council suggested that members in those areas urge qualified persons to apply for Advanced Certification in order to help the situation.

Moved by Curtis and seconded by Steer that the meeting be adjourned. Passed.

Adjourned 9:40 p.m.

November 22, 1952, 10:40 a.m.

President Westlake called the meeting to order and stated he would follow the established procedure of reviewing the proceedings of the Council and asking for approval of the Membership.

Report of Committee on Time and Place. It was recommended that the 1953 Convention be held in New York City, in the Hotel New Yorker, November 23-25.

Recommended meeting places for subsequent years were: St. Louis, 1954; San Francisco, 1955; Chicago, 1956; the South, if it is possible to get a hotel of adequate size and good arrangements, 1957.

Report of Committee on Placement, Advisory to the Placement Service of NSCCA. Westlake reviewed this report and mentioned that the Committee recommended its own termination with the suggestion that the Committee on Placement Study could continue this liaison.

Report of Committee on National Registries. This committee is presently standing by for future action.

Report of Committee on Speech Correction Fund. A few important aspects of this report were mentioned and the hope was expressed that Wendell Johnson would come in later and present the financial status of the Fund.

Report of Committee on Clinical Certification. The President asked Eugene T. McDonald to present his report to the Membership. (This report is printed in full following these minutes.)

Report of Committee on Clinical Standards in Hearing. Westlake reviewed the main items. (This report is printed in full following these minutes.)

Report of Committee on Committees. It was mentioned that the list of Committee membership for ASHA is a long one. The committees are selected in terms of the preparation people have to do specific jobs, in terms of distribution in their specialties of work and geographical distribution. The committees were deliberated on very carefully by the Committee on Committees in the first place and then by the Council. A complete report will be printed in the *Journal.* (This report is printed following these minutes.)

At the conclusion of the summary of the reports of the main committees as accepted by the Council, the President entertained a motion for the approval of them by the Membership.

Moved by Joseph M. Wepman and seconded by Elise Hahn that the committee reports as approved by the Council be accepted by the Membership. Passed.

Report of Committee on Honors. Upon the recommendation of the Committee on Honors there will be no Honors of the Association awarded this year.

In consideration of the report of the Committee on Honors the Council approved the following individuals as Fellows: John Clancy, John H. Gaeth, Lester L. Hale, T. D. Hanley, Ruth Beckey Irwin, T. Earle Johnson, Elvena Miller, Wilbert Pronovost, D. C. Spriestersbach, and Kenneth Scott Wood.

It was called to the attention of the Membership that Members of the Association are entitled to recommend to the Committee on Honors, persons whom they think should be awarded the Fellowship.

Reference was made to special letters of appreciation to be sent over the signature of the President to the University of Illinois, University of Minnesota, Pennsylvania State College, Wayne University and to Mr. Lawrence Linck of the National Society for Crippled Children and Adults.

Resolution on Reorganization of SAA. The following resolution which had been prepared upon request of the Council by Grant Fairbanks was read by him:

> In such respects as they refer directly to the American Speech and Hearing Association, the proposals for reorganization of the Spech Association of America, as advanced by Professor Wilbur E. Gilman, are viewed with dissatisfaction by this Association.

Moved by Margaret Hall Powers and seconded by Laila Larson that the resolution be accepted. Passed.

Resolutions. President Westlake called on S. Richard Silverman to read the resolutions which he, as Chairman of the Committee on Honors, had written:

Resolved: That the Association record its heartfelt appreciation for the abundant, intelligent services of its retiring President, Professor Harold Westlake. His earnest efforts have guided the Association through a year of constructive and fruitful growth.

Resolved: That the Association acknowledge its deep gratitude for the energetic and productive efforts of Vice-President Stanley Ainsworth and his Committee in preparation and execution of the informative and inspiring program developed for the 1952 Convention.

Resolved: That the Association reiterate its appreciation for the dedicated editorial leadership of Professor Grant Fairbanks and his staff.

Resolved: That the Association record its gratitude for the indefatigable, efficient, intelligent and competent management of its fiscal affairs by Professor George A. Kopp.

Resolved: That the Association express its sincere appreciation to Chairman George Herman and his Committee on Local Arrangements for their abundant efforts in staging the 1952 Convention.

Resolved: That the Association express its appreciation to the staff of the Statler Hotel for its gracious assistance in making the 1952 Convention a success.

Resolved: That the Association express its continuing satisfaction to Lawrence J. Linck, Executive Director, and Miss Jayne Shover of the National Society for Crippled Children and Adults for the mutually constructive relationships which exist between the two organizations.

Resolved: That the Association express its gratitude for the gracious and abundant hospitality of the Michigan Speech Correction Association.

Moved by Powers and seconded by William Perkins that the resolutions be adopted. Passed.

President Westlake cited the effective work that Spencer F. Brown has done for the Association, expressed regret that he must go into military service at this time and wished him an early and safe return to activities of the Association.

President Westlake turned the gavel over to the incoming president with the comment that Dr. Silverman has operated with great tact and very good judgment, and with very controlled but nevertheless tremendous energy, and judging from his operation within the Association to this date, the Association can look forward to an unusually good year.

President Silverman accepted the gavel and replied to Dr. Westlake, 'I trust that as you become an elder statesman, we can continue to count on your wisdom, your experience, your intelligence and your enthusiasm.'

Meeting adjourned at 11:45 a.m.

Respectfully submitted,

GEORGE A. KOPP
Secretary-Treasurer

EXTRACT FROM THE REPORT OF THE TREASURER

Balance Sheet
June 30, 1952

Assets

Cash		
Undeposited receipts		$ 166.20
On deposit—National Bank of Detroit		27,015.78
Petty Cash Funds		
Editor's Office	$ 77.17	
Clinical Certification	611.86	
Wayne University	25.00	
Ethical Practice	13.12	
Clinical Standards	15.05	
Vice-President	11.19	753.39
Accounts Receivable		469.70
Fixed Assets		
Office Equipment	$ 741.57	
Less: Reserve for Depreciation	178.58	562.99
Deferred Expense		
Prepaid 1952 Convention Expense		14.83
Total Assets		$28,982.89

Liabilities

Deferred Income		
Prepaid Subscriptions		$ 101.75
Capital		
General Fund	$11,212.91	
Journal of Speech and Hearing Disorders Fund	10,468.64	
Publications Surplus Fund	7,199.59	28,881.14
Total Liabilities		$28,982.89

Balance Sheet
October 31, 1952

Assets

Cash		
Undeposited receipts		$ 162.73
On deposit—National Bank of Detroit		23,452.79
Petty Cash Funds		
Editor's Office	$ 69.23	
Clinical Certification	611.86	
Wayne University	25.00	
Ethical Practice	13.12	
Clinical Standards	15.05	
Vice-President	11.19	745.45
Accounts Receivable		710.43
Fixed Assets		
Office Equipment	$ 812.73	
Less: Reserve for Depreciation	276.82	535.91
Total Assets		$25,607.31

Capital

General Fund	$11,084.35
Journal of Speech and Hearing Disorders Fund	8,082.57
Publications Fund	6,440.39
Total Capital	$25,607.31

EXTRACT FROM THE REPORT OF THE EDITOR

Number of pages devoted to different types of materials during 1952 compared with 1951 totals:

	March	*June*	*Sept.*	*Dec.*	*Direct. Suppl.*	*Monog. Suppl.*	*1952 Total*	*1951 Total*
Research and Theoretical Material								
Articles	45	85	85	54			269	191
Abstracts	7	6	6	6			25	29
Total	52	91	91	60			294	220
Practical and Business Material								
Articles	21	28	0	8		83	140	70
Book Reviews	8	6	8	6			28	29
News	7	8	7	6			28	30
ASHA Business	22	9	1	14	93*		139	105
Editorial	0	0	3	0			3	0
Total	58	51	19	34		83	338	234
Front Matter	2	2	2	2	2	3	13	10
Total	112	144	112	96	95	86	645†	464

*Includes Supplement to 1951 Directory and 1952 Directory
†Total exclusive of Monograph Supplement, 550
Manuscripts read and rejected, 16

REPORT OF THE COMMITTEE ON CLINICAL CERTIFICATION

1. We have prepared for publication in the June 1952 issue of the *Journal of Speech and Hearing Disorders* the clinical certification requirements of the American Speech and Hearing Association.
2. We have made a survey of course offerings applying to clinical certification requirements to be used at training centers.
3. We have completed the preparation of forms for processing the applications for clinical certification.

Summary of Applications Processed

Total number received as of November 1	527
Number of certification requests under Grandfather Provision	642
Number reviewed by total Committee	29
Number now in process in Committee	278
Number now in process in Chairman's office	220

Reasons for delays in processing:

1. Failure of applicants to submit adequate application materials

Transcripts	259
Experience statements	271
Sponsors' signatures	88
Membership	158
Own signature	12
Miscellaneous (course listings)	7

2. Failure of some Committee members to give prompt attention to applications. (The first batch left the Chairman's office on February 8, 1952 and was not returned to his office until October 14, 1952)

Budget

Income, January 31, 1952		$1,225.00
Expenditures		
Wages (Secretarial)	$490.52	
Supplies (Envelopes, paper)	6.20	
Postage	48.00	
Communication (telephone)	2.70	
Printing (blank forms, post cards, form letters, certification requirements)	121.85	
Equipment (typewriter)	95.00	$764.27
Balance, November 1, 1952		$ 460.73

Report of the Committee on Clinical Standards in Speech

The committee recommends that it should concern itself with the following activities:

1. The study and evaluation of applications for certification in speech from individuals with atypical training and experience.

a. The purpose of such an activity would be to assist such individuals as clearly meet the levels of training outlined in the certification requirements but who would be unduly penalized by being held to the formal academic requirements for certification.

b. Outline of procedure:

(1) Receive application materials from the Certification Committee on which there is a question of waiving certain training deficiencies.

(2) Prepare a written examination over the areas of academic deficiencies. The examination to be prepared by the Committee and taken at least three months prior to ASHA convention.

(3) If deficiencies are in a clinical area or areas, require a demonstration of clinical competency in diagnostic skills and the projection of a training program.

(a) This part of the examination would be held only at such times as the applicant had passed the written examination.

(b) The examination would be given at the site of appropriate clinical activities other than those with which the applicant may be associated.

(c) The evaluation of this part of the examination would be made by a member of the Committee or some other member of the Association designated by the Committee who holds advanced certification in speech.

(4) Conduct an oral examination.

(a) The examination would be conducted by the Committee on the day prior to or immediately following the ASHA convention.

(b) The examination would be held for those who had passed the previous steps or who are marginal. In the latter case, the oral examination would serve as a counseling device.

(5) The cost of these examinations would be borne by the applicant.

2. To determine the desirability of establishing short courses and, if established, to administer them.

a. The purpose of the short courses would be to help individuals meet certification standards (other interested persons would, of course, be encouraged to attend).

b. The following principles would be among those applied in administering a short course.

(1) The courses would be presented by highly qualified instructors.

(2) The instruction would consist of an intensive study of a limited amount of subject matter in a given field.

(3) The course of instruction would include 10 to 15 hours of study and such instruction would be given immediately prior to or following the ASHA convention.

(4) A preregistration would be required and prerequisites would be established where appropriate.

(5) Topics for short courses would be chosen on a long range basis.

(6) Only short courses sponsored by ASHA would be used for certification.

(7) A fee for the instruction would be established.

3. To review the program of training which has been submitted by each of the training institutions in order to appraise the courses which have been set forth by the individual institutions as meeting certification requirements.

a. In questionable cases further information would be obtained from the institution by the Committee.

b. Upon completion of the review list of courses meeting specific certification requirements would be approved by the Committee and areas of deficiencies, if any, would be noted. This information would be forwarded to the Certification Committee for its use.

c. The long range outcome of such a review would be the general accreditation of training institutions.

4. To establish necessary policy with reference to applications for dual certification in speech and hearing. Such a policy should define the extent to which overlap in training and experience should be allowed.

5. To maintain a continuing appraisal of certification standards in speech.

Report of the Committee on Clinical Standards in Hearing

1. The Committee was charged with the responsibility of constructing and administering the Examination for Advanced Certification in Hearing to appropriately qualified applicants. We were informed by the Chairman of the Committee on Certification that there were no applications for this Examination. It is currently being revised in the light of further Committee consultation.

The Committee has two specific recommendations concerning the oral section of the Examination:

a. Provision be made to enlarge the Committee carrying on the Oral Examination, possibly by the addition of several members of the Council. This procedure will provide for more adequate geographic representation.

b. Provision be made for carrying on the Oral Examination at different locations during the year, so that certain areas not be discriminated against in the matter of travel. The cost of this activity to the ASHA may be borne in part by the applicant for certification by means of an appropriate fee.

2. The Committee strongly recommends that the over-all problem of certification with its various ramifications—individual, clinic, and training institution—be considered before any steps be taken in the direction of certification of institutions carrying on training; this despite the fact that there is some indication that the U. S. Children's Bureau may be of financial assistance in this matter at the present time.

The specific recommendation is that the two Committees on Clinical Standards meet during the late winter or early spring for this purpose at some central location, and if feasible with ASHA financial assistance. The time of the Central States Meeting is suggested, so that members of the Council may participate.

Joint Report of Committees on Clinical Standards in Speech and Clinical Standards in Hearing

Dual Certification Requirements

I. Clock hours	
1. Basic certification in one area only	No change (200 hours)
2. Basic certification in both speech and hearing	300 clock hours with not less than 100 clock hours in either speech or hearing
3. Basic certification in one area and advanced certification in the other area	Same as 2 above
4. Advanced certification in both speech and hearing	Same as 2 above
II. Experience	
1. Basic certification in one area only	No change (1 year)

2. Basic certification in both speech and hearing	Two years, to be satisfied in one of two ways: a. One year in speech, one year in hearing b. Two years of combined experience which is certified by the sponsor as constituting adequate experience in both speech and hearing*
3. Basic certification in one area and advanced certification in the other area	Five years, to be satisfied in one of two ways: a. One year in the area of basic certification and four years in the area of advanced certification b. A total of five years of combined experience certified by the sponsor as constituting the equivalent of a minimum of one year in the basic area and three years in the advanced area*
4. Advanced certification in both speech and hearing	Six years, to be satisfied in one of two ways: a. A minimum of two years in either speech or hearing b. A total of six years of combined experience certified by the sponsor as constituting the equivalent of a minimum of two years in either area*

*Note: Sponsor or sponsors must hold advanced certification in the area or areas for which responsibility is assumed.

Report of the Committee on Speech Correction Fund

As of November 1, 1951 we had on hand $2642.54. We received funds during the year, that is from November 1, 1951 to October 31, 1952, totalling $1264.46. The National Society Contributions amounted to $813.81, composed of $772.88 which was staff time, 9,700 sheets of multilith paper and other items. The total income was $4,720.81.

We expended $500 for one scholarship which was awarded to Paul Ptacek of the University of Minnesota. The contributions of the National Society are also listed as expenditures, so the total expenditures were $1313.91, leaving a balance of $3,407.

We have to be received as soon as the Council authorizes the Speech Correction Fund Committee to make some more awards of scholarships, from a national sorority—Kappa Delta Phi—$1500. That will make the total $4907.

This income includes $490.75, which were royalties from the book, *Speech Problems of Children*, which was prepared for the National Society. It was published by Grune and Stratton with the royalties to go to the Fund. The income also includes $500 from the Kappa Delta Phi Sorority, from whom we are to receive another $1500.

Committee Appointments

Standing Committees

Committees (Officers; President-Elect, Chairman)

1. Grant Fairbanks
2. Ernest H. Henrikson
3. George A. Kopp
4. S. Richard Silverman
5. Margaret Hall Powers, Chairman

Nominations (Four appointive members; most recent ex-President, Chairman)

1. Hildred A. Gross
2. William G. Hardy
3. Wilbert L. Pronovost
4. M. D. Steer
5. Harold Westlake, Chairman

Budget (President; Editor; Secretary-Treasurer, Chairman)

1. Grant Fairbanks
2. S. Richard Silverman
3. George A. Kopp, Chairman

Liaison (President; Vice-President, Secretary-Treasurer; Editor; Chairman of Committee on Clinical Certification; Chairman of Committee on Ethical Practice; Executive Vice-President, Chairman)

1. Ollie Backus
2. Grant Fairbanks
3. George A. Kopp
4. Eugene T. McDonald
5. Margaret Hall Powers
6. S. Richard Silverman
7. Ernest H. Henrikson, Chairman

Convention Program (Vice-President-Elect; appointive members; Vice-President, Chairman)

1. Oliver Bloodstein
2. E. Thayer Curry
3. Frederic L. Darley
4. Paul D. Holtzman
5. Freda W. Neugebauer
6. Miriam D. Pauls
7. Gordon E. Peterson
8. Glenn J. Taylor
9. Charlotte G. Wells
10. Margaret Hall Powers, Chairman

Membership (One member each from speech disorders, hearing disorders, and basic speech and hearing sciences; Secretary-Treasurer, Chairman)

1. Elise Hahn
2. William G. Hardy
3. G. Paul Moore
4. George A. Kopp, Chairman

Honors (Five members who are Fellows; President-Elect, Chairman)

1. Grant Fairbanks
2. Ira J. Hirsh
3. Martin F. Palmer
4. Lee E. Travis
5. Harold Westlake
6. Margaret Hall Powers, Chairman

Clinical Standards in Speech (Four members who hold Advanced Clinical Certificate in speech; appointive Chairman)

1. Stanley Ainsworth
2. Thelma Knudson
3. Eugene T. McDonald
4. Jack Matthews
5. D. C. Spriesterbach, Chairman (1952-54)

Clinical Standards in Hearing (Four members who hold Advanced Clinical Certificate in hearing; appointive Chairman)

1. Merle Ansberry
2. Moe Bergman
3. Hayes A. Newby
4. Miriam D. Pauls
5. Leo G. Doerfler, Chairman (1951-53)

Clinical Certification (At least eight appointive members, all holding Advanced Clinical Certificate, four in speech, four in hearing; elected Chairman)

1. John H. Gaeth
2. Ruth Beckey Irwin
3. Jacqueline Keaster
4. Harriet Green Kopp
5. Frank Lassman
6. Darrel J. Mase
7. Robert Milisen
8. Charlotte G. Wells
9. Eugene T. McDonald, Chairman (1952-55)

Ethical Practice (Four members, one each from speech, hearing, and basic speech and hearing science; elected Chairman)

1. James F. Curtis (1952-53)
2. Frank Lassman (1952-53)
3. Darrel J. Mase (1953-54)
4. Jane Dorsey Zimmerman (1953-54)
5. Ollie Backus, Chairman (1953-55)

Terminology (Five members; appointive Chairman)

1. Norton Canfield (1951-55)
2. Grant Fairbanks (1950-53)
3. William G. Peacher (1953-57)
4. John C. Snidecor (1952-56)
5. Samuel D. Robbins, Chairman (1950-54)

Time and Place (Three appointive members; Executive Vice-President, Chairman)

1. Martin F. Palmer
2. M. D. Steer
3. Kathleen Varner
4. Ernest H. Henrikson, Chairman

Special Committees

National Registries

1. Ernest H. Henrikson
2. Wendell Johnson
3. Merle Ansberry, Chairman

Speech Correction Fund

1. Herbert Koepp Baker
2. George A. Kopp
3. M. D. Steer
4. Charles Van Riper
5. Wendell Johnson, Chairman

Placement Study Committee

1. George A. Kopp
2. S. Richard Silverman
3. Harold Westlake
4. Ollie Backus, Chairman

Committee on Association Planning

1. Wendell Johnson
2. Martin F. Palmer
3. M. D. Steer, Chairman

MINIMUM REQUIREMENTS FOR HEARING PROGRAMS OFFERING GUIDANCE IN SELECTION OF HEARING AIDS

THE American Speech and Hearing Association recognizes that the activities of a hearing service are diverse. No single definition can cover all the legitimate activities that such programs incorporate. In general, such programs offer education and rehabilitational services but do not engage in the sale or maintenance of hearing aids. However, the assessment of hearing to evaluate the potentialities which individuals have for use of hearing aids is frequently an important phase of a program's activity.

A hearing center may be associated with an education institution, a hospital, or a service agency. There is no inherent reason why such a center could not be a private venture provided its practices and ethics conform to recognized professional standards. The center may offer medical services if appropriately affiliated and staffed. In any event, the services of the center are distinguished from the general practice of otolaryngology because of their emphasis on non-medical rehabilitation. Conversely, its services are distinguished from schools whose purpose is the long term academic training of pupils with auditory impairments.

The American Speech and Hearing Association is committed to the philosophy that every activity worthy of designation as a hearing program should satisfy realistic standards insuring its competence. Generally speaking, there is a widely recognized frame of reference for such standards. The qualifications which a center's personnel may be expected to satisfy are implicit in (1) the degree requirements of institutions offering training in audiology, (2) the requirements of the several states for certification of teachers, and (3) the Association's own requirements for clinical competence in the field of hearing. In turn, competent personnel will make demands on administrative superiors which will encourage adequate physical facilities and equipment for the center. Thus, there does not at the moment seem to be need to formulate requirements covering all phases of a hearing program's activities. The principles already established by current practices and a general program of assuring recognition of competent professional workers appear ample safeguards.

The situation is somewhat different when one of the services offered is guidance in selection of hearing aids. This consideration leads to the following statement of requirements which the American Speech and Hearing Association deems minimal if a center engages in this activity.

These requirements were recommended by the Committee on Minimum Requirements for Hearing Clinics (Jack L. Bangs, George A. Falconer, Wallace A. Goates, John W. Keys, Donald M. Markle, S. Richard Silverman, Jesse J. Villarreal, Raymond T. Carhart, Chairman) and approved by the Executive Council at the 1952 Annual Convention.

Minimum Requirements

A hearing program shall be considered as equipped to engage adequately in the task of guidance in the selection of hearing aids only if it satisfies all the criteria listed below.

I.A. The center shall follow a sound plan for obtaining otological guidance and advice regarding its policies and practices.

B. The center shall follow a sound policy of obtaining otological diagnoses and adhering to medical recommendations.

C. Except where there is medical approval to the contrary, final recommendations regarding hearing aids will be withheld until medical or surgical regimes advised by the otolaryngologist shall be completed.

D. If appropriate medical clearance is obtained, the center may make ear impressions and may arrange for the manufacture of earpieces as an adjunct to proper testing.

II.A. Personnel shall have qualifications equivalent to those specified by the American Speech and Hearing Association for clinical certification in the hearing field.

B. The individual supervising the program of hearing aid selection shall satisfy the qualifications for the Advanced Certificate in Hearing. (Since this certification has just been established, an appropriate time must be allowed in order for persons currently in such positions to demonstrate the adequacy of their qualifications.)

C. Persons conducting the tests and other routine activities of the program for hearing aid selection should satisfy the qualifications for the Basic Certificate in Hearing.

D. A person who does not satisfy Criterion C may be used only if three conditions are met. [1]

1. His activities shall be directly supervised by a certified member of the center's staff.

2. The evaluation of findings and the clinical decisions arising therefrom shall remain the responsibility of the staff member.

3. He shall have had sufficient instruction, both theoretical and practical, to qualify him for participation in the program before undertaking the above duties.

III.A. Special testing rooms shall be so constructed and located as to supply a physical environment which is acceptable for the use to which they are put. The basic requirement is that all special facilities must make possible the validity of the tests or other techniques conducted therein.

B. The electro-acoustic and other equipment employed in testing patients shall satisfy the conventional standards for adequacy. The equipment shall be used in such manner as to maintain the validity of the tests employed. This requirement includes arrangements to keep the equipment properly calibrated and in good working condition.

Current practice indicates that ordinarily the minimum equipment is that which allows the exploration of threshold for pure tones as well as both threshold and supra-threshold hearing for speech. Procedures may change as a result of advancing knowledge, and it is explicitly intended that the equipment shall be consistent with contemporary clinical standards.

[1] It is the sense of this requirement that students-in-training shall not be substituted for qualified personnel. Students-in-training are here defined as individuals engaged in mastering the techniques involved in hearing aid selection.

IV. The hearing program shall have ample and satisfactory provisions for the educational and rehabilitational management of the persons examined. Either the center must offer these facilities itself, or a sound plan of referring cases for these services must be in effect.

V. Any stock of commercial hearing aids with which cases are tested shall represent a reasonable sample of the hearing aid characteristics which are currently available. Furthermore, provisions shall be made to keep these hearing aids in proper working condition.

VI. The center shall not engage in the sale of hearing aids or accessories.

VII. The center shall adhere to sound ethical practices.

A. The code of ethics of the American Speech and Hearing Association shall be observed.

B. The center shall maintain a positive policy of offering access to its philosophy and method of operation.

C. The center shall not release advance information on its recommendations to a commercial organization or an individual engaged in the sale of hearing aids.

VIII. The center shall adhere to a policy of referring patients about to purchase hearing aids only to commercial organizations and individuals who have demonstrated their integrity, their competence in dealing with hard of hearing persons, and the adequacy of both their facilities and service.

Clinical Certification Notes

Information on the following actions of the Executive Council concerning clinical certification will be found in this issue of the *Journal* as indicated:

Clarification of dual certification requirements under the Grandfather provision, page 104.

Extension of the deadline for applying for certification under the Grandfather provision, page 99.

The Association voted (see Council Minutes for November 8, 1950, *JSHD*, 16, 1951, 86) to award certification automatically under the new organization to all Members who were Professional or Clinical Members. Special forms were distributed to the Membership for indicating the area of certification desired. Those Members who have not yet applied for the certification to which they are entitled should:

1. Study carefully the ASHA Council Minutes cited above.

2. Write to the Chairman of the Committee on Clinical Certification, Eugene T. McDonald, Speech Clinic, Pennsylvania State College, State College, Pennsylvania, indicating whether certification in speech or hearing is desired.